

AMERICAN JOURNAL OF ARCHAEOLOGY

Second Series

THE JOURNAL OF THE ARCHAEOLOGICAL
INSTITUTE OF AMERICA

Editor-in-Chief

WILLIAM NICKERSON BATES

Associate Editors

GEORGE H. CHASE
R. V. D. MAGOFFIN
ALLAN MARQUAND
LEWIS B. PATON
FRANK G. SPECK
SIDNEY N. DEANE

CONTENTS

ROMAN PORTRAITS AT CORINTH. IV. TORSOS
STRUCTURAL IRON IN GREEK ARCHITECTURE
ICONOGRAPHY OF THE SACRIFICE OF ISAAC
HERACLES AND THE OLD MAN OF THE SEA
ARCHAEOLOGICAL DISCUSSIONS (July-December, 1921)
BIBLIOGRAPHY, 1921.

CONCORD, N. H.

PUBLISHED FOR THE INSTITUTE BY

The Rumford Press

Annual Subscription, \$5.00

Single Numbers, \$1.50

PUBLISHED QUARTERLY

BOSTON UNIVERSITY
COLLEGE OF LIBERAL ARTS
LIBRARY



CONTENTS

	PAGE
AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS:	
A GROUP OF ROMAN IMPERIAL PORTRAITS AT CORINTH.	
IV. THE TORSOS (PLATE I)	E. H. Swift 131
ARCHAEOLOGICAL INSTITUTE OF AMERICA:	
STRUCTURAL IRON IN GREEK ARCHITECTURE.	
	William Bell Dinsmoor 148
THE ICONOGRAPHY OF THE SACRIFICE OF ISAAC IN	
EARLY CHRISTIAN ART	Alison Moore Smith 159
HERACLES AND THE OLD MAN OF THE SEA	
	Stephen Bleecker Luce 174
ARCHAEOLOGICAL DISCUSSIONS (July-December, 1921)	
	Sidney N. Deane, <i>Editor</i> 193
 <i>Oriental and Classical Archaeology</i> :—General and Miscellaneous, 193; Egypt, 196; Babylonia, Assyria and Persia, 197; Syria and Palestine, 199; Asia Minor, 201; Greece, 202; (Architecture, 202; Sculpture, 202; Vases and Painting, 207; Inscriptions, 207; Coins, 208; General and Miscellaneous, 208); Italy, 211; (Architecture, 211; Sculpture, 211; Painting, 213; Inscriptions, 213; Coins, 214; General and Miscellaneous, 214); Spain, 216; France, 216; Switzerland, 217; Austria, 218; Sweden, 218; Great Britain and Ireland, 218; Northern Africa, 219.	
 <i>Early Christian, Byzantine, and Mediaeval Art</i> :—General and Mis- cellaneous, 219; Italy, 220; Spain and Portugal, 223; France, 224; Belgium and Holland, 226; Germany, 227; Poland, 227; Sweden, 228; Great Britain and Ireland, 228.	
 <i>Renaissance Art</i> :—Italy, 229; Spain, 234; Belgium and Holland, 234.	
 <i>American Archaeology</i> :—General and Miscellaneous, 235.	

BIBLIOGRAPHY OF ARCHAEOLOGICAL BOOKS: 1921

Sidney N. Deane, *Editor* 237

General and Miscellaneous 237

Egyptian Archaeology 241

Oriental Archaeology 243

Classical Archaeology 245

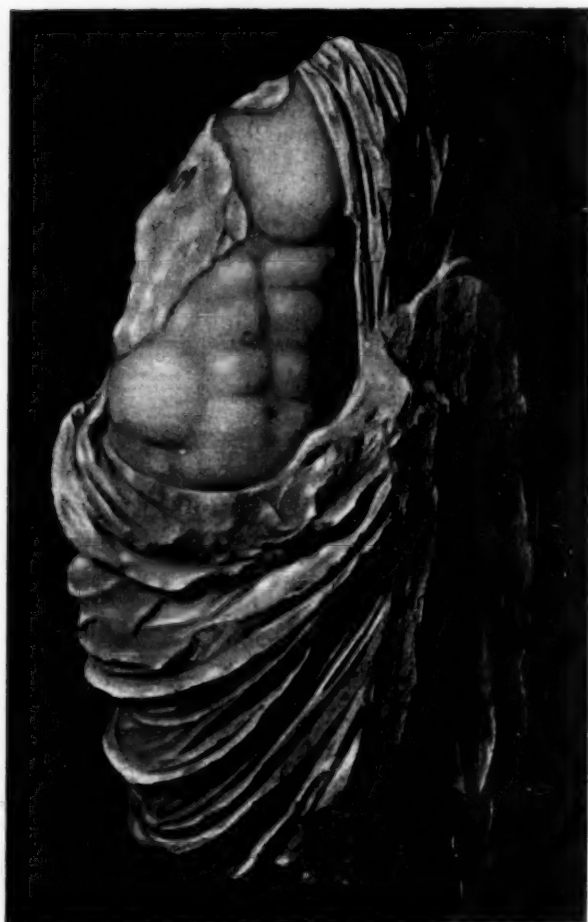
Greek and Roman 245

Greek, 246 (I, General and Miscellaneous, 246; II, Architecture, 247; III, Sculpture, 248; IV, Vases, 248; V, Inscriptions, 248; VI, Coins, 248).

Roman, 248 (I, General and Miscellaneous, 248; II, Architecture, 249; III, Sculpture, 249; IV, Vases and Painting, 249; V, Inscriptions, 250; VI, Coins, 250).

Christian Art 250

(I, General and Miscellaneous, 250; II, Early Christian, Byzantine, and Mediaeval, 253; III, Renaissance, 256).



TORSO FROM CORINTH.

BOSTON UNIVERSITY
COLLEGE OF LIBERAL ARTS
LIBRARY

A GROUP OF ROMAN IMPERIAL PORTRAITS
AT CORINTH

IV. THE FOUR TORSOS

[PLATE I]

A.—COLOSSAL SEMI-NUDE MALE TORSO

WITH one possible exception the four mutilated statues to be discussed in the present article seem to have formed part of the great imperial group of portraits at Corinth, the more important members of which have already been considered. All were found in the same area above and to the south of Pirene, and one only was discovered beyond the limits of the Roman basilica so often mentioned.¹ On grounds of style and technique it is plain that three at least of these statues must have belonged to the group as originally constituted, while the other may well have done so. I shall discuss these works in their apparent order of importance in the group, beginning with a colossal male figure in heroic pose (PLATE I). This came to light at a great depth in the northwest quarter of the basilica, where it rested very little above hard-pan. It was overlaid by a thick stratum of fragments of early mediaeval tile and ruined walls of the same period, and had apparently suffered much the same treatment at the hands of the Byzantine wreckers as that accorded the Lucius.² It was found lying slightly tilted on the left shoulder and side.

As already mentioned, the statue is of colossal scale, and is preserved from the base of the neck nearly to the knees, its total height being 1.52 m.;³ the right arm, shoulder, and whole right side of the chest is broken away, and the left forearm is also lacking. At the top of the median line of the chest there appears a roughly worked cup-shaped depression, clearly the bottom of a

¹ Cf. *A.J.A.* XXV, 1921, p. 143, fig. 1.

² Cf. *A.J.A.* XXV, 1921, pp. 338 f.

³ Further dimensions: maximum width across front .82 m., from navel to ground .90±m., from navel to bottom of cutting for insertion of head .55 m.

hollow socket fashioned to receive the neck-base of a head cut from a separate block. The upper portion of the left breast is also scarred, while the deeply cut folds of the drapery are much damaged, particularly the heavy vertical mass before the left leg, the folds crossing the abdomen, and those upon the right thigh; many small fragments of the drapery were found near the statue where they had been scattered and forgotten by the wreckers, thus escaping the mediaeval lime kiln. Although the feet and lower part of the legs are lacking, there came to light a huge shattered plinth of Pentelic marble with two colossal bare feet attached, and the remains of a supporting tree-trunk, all cut from a single block; this was found in a jumbled mass of debris of the Roman period at about the same depth and only a few meters distant from the statue itself. The whole front of the plinth is broken roughly away, the right foot is shattered nearly to the instep, while the heel only of the left is preserved. In consideration of the place where it was found, the material, and the size of the feet,¹ this basis must certainly have supported the great male figure, although the actual joining of the two cannot be effected. Upon the upper surface of the plinth, and particularly beneath the instep of the right foot, there exist traces of a red painted stucco.

The material from which the great figure is cut, though similar to that of the other members of the group, is of a considerably finer texture and better grade; the only trace of a flaw is that discoverable along the plane of the break through the left forearm.

The statue is a semi-nude male figure clad only in a richly draped *himation* or *pallium*. From the left shoulder the drapery passes diagonally downward across the back, is thence brought forward in complicated folds across the right hip and abdomen, and is caught up over the extended left forearm whence it falls in heavy masses along the left leg. The figure stood apparently with its weight on the right leg and with the left slightly advanced. Many analogies may be quoted for the pose and general handling of the drapery, the type being clearly that traditionally assigned to

¹ The right foot is more than .37 m. long. Dimensions of the basis itself are: width across front .86 m., slightly wider than the figure itself,—depth from front to rear .65 m., thickness .135 m., greatest height, from bottom, to top of tree-trunk, .35 m.

Zeus¹ as well as to Aesculapius.² Unlike the other members of the group the work now before us shows distinct traces of weathering, particularly over the right hip and along the drapery of the thigh and leg on the same side, where the characteristic golden brown tint of weathered Pentelic marble appears quite plainly. The reverse of the figure is, as usual, very summarily treated, yet from indications furnished by the working of the drapery it seems that the statue was not set squarely against a wall or within a niche, but was posed with the right side considerably advanced. The drapery itself in its remarkably skilful arrangement, in the free and versatile handling of the complicated folds, and in its masterly surface texture, is by far and away the best to be found in the entire Corinthian group; indeed, it is safe to say that we have here a direct harking back to the famous drapery of the Parthenon pediments³—perhaps even a conscious imitation—although the archaism is plainly disclosed in the complexity of the folds, the depth of the undercutting, and the restlessness combined with a touch of stiffness which is so characteristic of a late and eclectic art. This impression is heightened by the modelling of the torso itself, which, though correct and remarkably well done—far better even than that of the Gaius—is entirely lacking in fluidity, and gives the same suggestion of hardness and academic method peculiar to the Corinthian works already discussed.⁴

The technique throughout is much more careful and studied than in any of the other pieces, and although evidence of drilling is apparent in the drapery it is in general very skilfully concealed. The flesh surfaces are smoothly worked and unpolished, but of so fine and careful a finish that but slight traces of tooling of any sort can be discovered; it is clear, however, that the technique is of the same sort as that which appears in the other statues of the group, whence we may conclude that all the pieces so far considered are contemporaneous or nearly so.

¹ Cf. Reinach, *Rep. de la Stat. Grec. et Rom.*, Zeus in the Louvre, I, p. 158, pl. 311, No. 683; also Froehner, *Notice de la Sculp. Antig. du Louvre*, 32, 5; Zeus in Dresden, Reinach, *op. cit.* I, p. 188, pl. 401, No. 680; also Hettner, *Antikensammlung zu Dresden*, 225.

² Cf. Aesculapius in Rome, Reinach, *op. cit.* I, p. 287, pl. 545, No. 1146; *ibid.* I, p. 297, pl. 560 A, No. 1160 D; also Matz-Duhn, *Antike Bildwerke in Rom*, 58.

³ Cf. the drapery of the "Three Fates" in the British Museum, Brunn-Bruckmann, *Denkmäler*, pl. 190.

⁴ Cf., for example, with A.J.A. XXV, 1921, pls. X and XI, also fig. 1, p. 339.

It is scarcely necessary to point out that in this work we have another interesting example of eclecticism,—an eclecticism, however, which differs markedly from the usual neo-Attic type; indeed, the handling of the drapery is alone sufficient to put this figure in a class by itself. Although difficult to judge of the bodily proportions from the mutilated trunk, I yet think it probable that they followed closely those of the Gaius, allowance of course being made for the fact that we have here to do with a more mature and powerfully developed form; the groin line, for example, with the heavy roll of flesh above the hip, in both works receives a similar treatment, while the actual surface modelling of the thorax discloses the same system of proportions.¹ In the more powerful rendering and detailed musculature we may, perhaps, detect a stronger influence from the old Peloponnesian athletic type, yet it seems on the whole more plausible to account for this merely on grounds of the greater importance to the group of the personage represented. Indeed, the differences to be noted between this figure and the others of the group are variations of degree and not of kind, and are to be accounted for by the assumption that we have here the central and most important figure of the entire assemblage,—an assumption strongly seconded not only by the colossal scale of the work but also by the god-like, heroic guise under which the subject is represented.

As to the person shown by this portrait—and it certainly was a portrait—we have no means of reaching a definite decision; nevertheless it seems to me that it admits of fairly plausible conjecture. As we have seen, all the evidence points to the fact that this statue formed part of the great imperial group of portraits erected in all probability between 1 and 5 A.D.,—it was found within the same building as the others, is of similar material and technique, and belongs to the same school. Other portraits of the group have been identified as Augustus, Tiberius, Gaius, and Lucius,—none of them preëminent in scale or workmanship, and each two falling naturally into pairs of companion pieces. If, therefore, neither Augustus nor Tiberius is indicated as the central and important figure of this imperial group, who else could be logically expected to occupy such a position at this particular period of history and in this particular city? Obviously, none other than the Divine Julius himself.

¹ Cf. with *A.J.A.* XXV, 1921, pl. X, and fig. 1, p. 339.

In support of this conjecture many considerations are to be adduced other than that of the mere heroic proportions and god-like type of the figure,—the latter serving, of course, to indicate that the personage represented had departed this life and taken his place among the immortals. It is well known for example, that the Corinthians of the first century looked upon Julius Caesar as the founder and especial patron of their city, the great deified mortal who had restored the city to its old time wealth and importance after the bitter century of decay which followed upon the terrible sack and destruction of Mummus.¹ It was in 46 B.C. that Caesar determined to rebuild Corinth and sent thither a numerous colony consisting of his veterans and freedmen,² whereupon even its name was changed, appearing henceforth on coins and inscriptions as COLONIA IVLIA CORINTHVS, also LAVS IVLI CORINTHVS, and later COLONIA IVLIA CORINTHVS AVGVSTA. It is quite unthinkable, therefore, that the Divine Julius should have been omitted from such a group at Corinth, and even more improbable that the central and important position therein should have been reserved for other than himself alone. We are hence justified in wishing to recognize in this fine heroic statue the remains of a great portrait of Julius Caesar, deified, and shown forth under the aspect perhaps of Zeus the Thunderer, or of the Isthmian Poseidon.

In conclusion it is interesting to note that the cup-shaped depression at the base of the neck of the figure (cf. *supra*, p. 131) may be considered as proof that another portrait head was substituted for that of Julius at a later period of the empire when such piracy of portraiture was common enough. It is extremely improbable that, at the early date when the statue was erected, the figure should have been prepared *de novo* with the head inset and of a separate block of marble.

B.—SMALLER SEMI-NUDE MALE TORSO

A somewhat smaller male torso of semi-nude heroic type, not differing greatly from that of the statue just discussed, was found in the north aisle of the same basilica at a somewhat higher level (Fig. 1). When discovered it was resting on its side and imbedded

¹ Cf. Strabo, VIII, p. 381; Pausanias, II, 1, 2, and VII, 16, 7; Florus, II, 16; Velleius Paterculus, I, 13; Cicero, *Pro Leg. Man.* 5, etc.

² Cf. Strabo, *loc. cit.*; Pausanias, *loc. cit.*; Dio, XLIII, 50; also Pliny, *N. H.* IV, 4, 5, etc.



FIGURE 1.—TORSO FROM CORINTH.

in the lower courses of an early mediaeval wall erected upon the ruins of the Roman structure. It had not, apparently, been moved any great distance from the place where it originally fell, but, together with shattered blocks and fragments of the earlier building, had been laid hold of by the mediaeval builders because it happened to be on the spot and ready to hand.

Though by no means colossal, the statue is considerably over life size, and is preserved from the upper part of the chest to a point slightly above the knees, its total height being 1.18 m.;¹ the arms, shoulders, and top of torso have been hacked away, as has the front of the left leg, together with the adjacent drapery. A cup-like hollow similar to that noted in the larger figure appears here also, where it doubtless served a similar purpose. The shoulders and upper part of the chest seem to have been represented as covered by a *chlamys* which was probably fastened on the right shoulder by a brooch; the drapery was thence carried backward over both shoulders and passed downward over the buttocks leaving the whole left side, thigh, and upper leg bare; on the right side, however, a heavy mass of folds is brought around from the back and carried forward over the right hip and thigh, the main body of the stuff passing from right to left and downward across the lower part of the abdomen to the left hip, where it was supported apparently by the left hand. On the right side the lower folds are draped over the right leg and caught up at the crotch in a most curious manner. In fact the entire scheme of drapery is most unusual; it would seem practically impossible to arrange an actual *chlamys* in any such fashion upon a standing figure.² The statue is cut from Pentelic marble of the same sort as that used for the other members of the group.

Because of the poor preservation of the work it is difficult to determine its pose with any degree of accuracy. The weight, however, seems to have been carried on the left leg, while the right was probably advanced and flexed at the knee; the left

¹ Further dimensions; maximum width at hips .55 m., from navel to ground .69 m., from navel to bottom of cutting for insertion of neck .43 m.

² This method of wearing the *chlamys* is rare even in seated figures,—cf. Tiberius in the Museo Chiaramonti, Amelung, *Sculp. des Vat. Mus.*, I, taf. 60, and Reinach, *op. cit.* I, p. 568, pl. 925, No. 2352. I have found only one analogy to this type of drapery in a standing figure, i.e., an imperial figure in the Museo Torlonia, Reinach, *op. cit.* II, p. 572, No. 5; *Album of the Museo Torlonia*, No. 118, and Visconti, *Catalogo del Museo Torlonia*.

hand, as already noted, must have supported the drapery at the thigh, while the right arm seems to have been raised and, perhaps, supported on a long lance or staff. Whether this restoration be correct or not, the pose indicated was common enough in the sculpture of the period and is found with slight variation in many replicas.¹ As in the other members of the group, the rear of the figure is but roughly blocked out, while the few traces of weathering still observable also indicate that it stood originally under cover and against a wall.

The technique is in general similar to that noted in the other works, although the flesh surfaces are, perhaps, not so smoothly finished. The modelling is correct and fairly good, but because of the rough usage suffered by the figure, it produces an impression of lack of detail combined with the usual hardness and academic tone. The drapery, though facile, is rather summarily treated; no considerable undercutting seems to have been attempted, and the whole effect is quite stiff and neo-Attic. In fact, the technical and stylistic considerations—*e.g.*, groin-line, prominent muscle above hips, modelling of the rib-muscles beneath the right breast, etc. (cf. Fig. 1 and PLATE I)—all indicate clearly that this statue is of the same period and school as the other members of the group; they make it equally plain that the figure was intended to represent a subordinate personage in that the work is less careful and less detailed, in which respect it finds its closest analogy in the Lucius.

We can only conjecture as to the person this statue represented. Although in scale it ranks about with the Augustus and is thus considerably larger than the Gaius, the workmanship would seem to indicate, as mentioned above, that the figure was of secondary importance in the group; furthermore, the heroic pose and scanty drapery probably show that the portrait was of a personage already dead and among the immortals at the time of the erection of the group. In view of these slight indications it is, perhaps, presumptuous even to hazard a guess; nevertheless I would suggest that it may well have been a portrait of Agrippa.

C.—SMALLER ARMORED TORSO

A mail-clad torso of smaller scale than that just discussed was discovered in a mediaeval wall a few meters southwest of the

¹ Cf. the work already quoted, Reinach, *op. cit.* II, p. 572, No. 5, also I, p. 560, pl. 912 A, No. 2331 A; I, p. 562, pl. 916, No. 2398 C; I, p. 573, pl. 936, No. 2383, etc.

basilica (Fig. 2). The figure was built carefully into the wall, back outward, and resting on its right side at a depth of little more than two meters beneath the surface.

The statue, of good Pentelic marble similar to that used for the other members of the group, is the smallest of the lot—no more than life size,¹—and is preserved from the neck nearly to the knees; it stood with the weight on the right leg, the left thrust forward and slightly bent at the knee. The right arm, now lacking, was raised and attached in a separate piece at the shoulder, while the left, which is missing from the middle of the upper arm, seems to have hung naturally at the side. The pose was, perhaps, that of the *allocutio*, that traditionally assigned to representations of a commander addressing his troops.² The figure is shown as clad in full panoply consisting of a bronze cuirass moulded to reproduce the forms of the torso beneath, and a kilt of heavy leathern flaps about the loins; beneath the armor is worn a sleeveless chiton which must have fallen about to the knees, while over the left shoulder appears a roll of drapery which doubtless represented the *chlamys* or *paludamentum*; the stuff is gathered rather closely upon the left shoulder, and seems either to have fallen thence straight down the back free of the body, or else to have been wound about the left forearm.³ An ornamental sword-belt or *cingulum* passes twice about the body and is knotted just above the navel, the free ends being then tucked up in symmetrical loops on either side, while above in the middle of the chest is worked a conventional *gorgoneion* in low relief. Fringing the lower rim of the cuirass is an intermediate row of short tasselled leathern straps, an ornamental *motif* which is repeated in slightly different form about the armholes beneath the epaulets. The drapery upon the left shoulder is considerably battered, as are also the gorgon's face, the tassels and loops of the sword-belt, and the two lion heads—the lower turned upside down—which served to make fast to the breastplate the forward end of the right

¹ Dimensions: total height 1.10 m., from neck to navel .40 m., from navel to lower rim of cuirass .145 m., from navel to bottom of kilt .43 m., maximum width across the shoulders ca. .60 m.

² Cf. the Augustus of Prima Porta in the Vatican, Amelung, *op. cit.* II, taf. 2, No. 14; Hadrian in the British Museum, Reinach, *op. cit.* I, p. 582, pl. 944, No. 2420; also Bernoulli, *Römische Ikonographie*, II, 2, p. 109, No. 14; an imperial figure in Turin, Reinach, *op. cit.* I, p. 599, pl. 973, No. 2309, etc.

³ Cf. the references just cited.



FIGURE 2.—SMALL ARMORED TORSO: CORINTH.

epaulet.¹ The breasts are prominent and clearly indicated. To judge from the cutting at the neck, the original portrait head was probably broken away and another of the inset variety substituted at a later date, a change similar to that which seems to have been effected in the case of the semi-nude figures discussed above.

In style and technique this statue agrees perfectly with the other members of the group. Although no flesh surfaces are exposed, the characteristically hard and generalized modelling appears in the forms of the cuirass, while the drapery is rendered in the manner with which we are now so familiar.² The surfaces throughout are less smoothly finished than in any of the other figures, the workmanship less careful, and, as usual, the rear is but roughly blocked out; almost no traces of weathering are observable. It is plain, therefore, that the statue stood under cover and in such a position that the back was not exposed to view. On the outer edge of the left sleeve of the tunic appear two *puntelli* very similar to those found in a corresponding position on the Gaius as already described.³

It is useless to speculate as to the person represented by this portrait,—but judging from the small scale of the figure and its distinctly inferior finish, we may be sure that it stood for an individual of minor importance in the imperial family, perhaps Agrippa Posthumus.

D.—FIGURE CLAD IN ELABORATE ARMOR

The discussion of the great cuirassed figure now before us (Figs. 3 and 4), the final member of the Corinthian group so far known, has for several reasons been chosen to conclude the series. Although apparently a typical representative of the large and well known class of statues which figure the panoplied worthies of the

¹ For another example of such a detail cf. a bust of Hadrian in the Vatican, Amelung, *op. cit.* Tafelband I, taf. 12, No. 81, Textband I, p. 97.

² Cf., for example, the drapery on the left shoulder with that in a corresponding position on the Gaius and the Lucius, *A.J.A.* XXV, 1921, pls. X and XI; note the very similar arrangement of folds, the same deep undercutting worked largely with the drill, and the striking resemblance in texture.

³ Cf. the article on Gaius and Lucius, pp. 343 f. Regarding these *puntelli* upon the present work, Dr. C. W. Blegen writes me from Athens ". . . they appear to me more doubtful (than those of the Gaius). It is of course possible that they are *puntelli*, but I should rather interpret them as buttons or heads of pins, or some sort of decoration at the corners of the sleeve."



FIGURE 3.—TORSO IN ELABORATE ARMOR: CORINTH.

Roman Empire, it is nevertheless unique in many respects and in others differs from the great majority of like works of the period. It shows further a style and technique which seem in a way to set it apart from the other members of the group, although these differences are, perhaps, more apparent than real.

It was discovered within the Roman basilica not far from its southwest angle at a depth of about three meters and, as in the case of the smaller cuirassed torso, had been built into a massive substructure of early mediaeval date composed of rough and

heavy blocks, all apparently reused material from the ruins of the earlier building. It reposed on its left side facing into the wall, and hence upon discovery the back alone was exposed to view.

The figure is of Pentelic marble very like that used for the Gaius, while in scale it coincides almost exactly with the statues of the two youths; it is preserved from neck to knees and measures as it stands about 1.50 m.¹ The weight of the figure is carried on the left leg, while the right is slightly advanced and bent at the knee; the right arm, now lacking, was attached in a separate piece just below the shoulder, and seems to have been bent at the elbow and extended forward and to the right. It was at any rate quite clear of the body. The left arm, hanging naturally at the side, is preserved to the middle of the forearm and is crooked slightly to support the drapery which here passes across it. The pose and gesture are of common occurrence in Roman sculpture.² The torso is sheathed in a most elaborate cuirass upon the front of which is worked in high relief a fairly common *motif*, that of two winged victories setting up a trophy,³ while above is a broad *gorgoneion* encircled by two serpents knotted together at the crown.⁴ A further and most unusual elaboration is seen in the repetition of the trophy *motif* upon the right epaulet where, due to the limited field, but a single Victory is figured. The kilt which protects the lower half of the body is also very elaborate, and is composed of the usual two ranges of leathern straps, the upper very short and used merely for decorative effect; the individual straps are richly fringed, and in places were deeply undercut and rendered most carefully in detail. This *motif* is as usual repeated in slightly different form about the armhole beneath the

¹ Dimensions: neck to waist line .49 m.; waist line to bottom of kilt .40+ m.; maximum width of figure ca. .75 m.; height of trophy on breastplate .345 m.; height of larger Victories .32m.; height of Victory on right shoulder .19 m.; width of *gorgoneion* .15 m.; width of cutting for the neck .21 m., depth .17 m.

² Cf. Marcus Aurelius in Rome, Reinach, *op. cit.* I, p. 587, pl. 953, No. 2447, and Bernoulli, *op. cit.* II, 2, p. 166, No. 2; Domitian in the Vatican, Bernoulli, *op. cit.* II, 2, p. 55, No. 1, taf. XIX; etc.

³ Cf. Trajan in the Louvre, Reinach, *op. cit.* I, p. 171, pl. 338, No. 2114; Wroth in *J.H.S.*, 1886, p. 132, No. 46; *Mon. Scelti Borghesi*, I, 35; Torso at Agram, *J.H.S.* 1886, p. 132, No. 45; *Arch. Epig. Mitth. aus Oester. Ungarn*, 1885, IX, pl. II; Colossal statue in Turin, Bernoulli, *op. cit.* II, 1, p. 335, No. 20,—Dütschke, *Ant. Bildw. in Ober-italien*, IV, p. 39, No. 55; etc.

⁴ Cf. Fig. 4. The *gorgoneion* is a very common decoration in works of this type.

right epaulet. Under the armor the usual tunic is worn, appearing only at the shoulders and as a short skirt below the bottom of the kilt. The *paludamentum* completes the costume; from a complicated mass of folds resting low upon the left shoulder it passes diagonally downwards across the back to the right hip, where a fold spreads widely below the main supporting roll. The latter then crosses the front of the body just below the row of shorter straps and is carried up and over the left forearm to a point behind the elbow; thence it seems to have fallen down the left side at least as far as the bottom of the tunic.¹ As would seem to have been the case with the three torsos just considered, the original portrait head was probably broken away and the cavity at the neck prepared to receive another likeness of considerably later date; at any rate the cutting at the neck is not original.

Although in general well preserved, the torso is somewhat battered and worn in detail; numerous fragments of the drapery are missing, particularly at the left arm, and upon the front of the kilt two of the straps are broken away entirely and others are badly chipped. On the breastplate itself the outer wings of the Victories have suffered considerably, the whole surface is abraded, and many of the details are blurred. The right leg of the statue is preserved to just below the knee, while the left, which was strengthened at the rear by a heavy supporting tree-trunk, the top of which is still in place, is broken off about .10 m. higher up. At a considerably later date, however, there came to light in the northeast section of the basilica at a level not much above hardpan the lower part of a left leg which certainly belongs to this figure. The leg is preserved from the knee down, is supported against a roughly worked tree-trunk, and stands upon a plinth in part preserved, the upper surface of which is covered with a red painted stucco similar to that noted in the case of the Gaius² and the colossal male torso.³ Although the front of the foot is broken away, enough is preserved to show that it was clad in a high military sandal or buskin which extended more than half way to the knee and was fastened at the top by a broad thong wound thrice about the leg and tied in front.⁴ From the same

¹ For a very similar handling of the *paludamentum*—at least across the front of the body—cf. the Augustus of Prima Porta, Reinach, *op. cit.* II, p. 574, No. 6.

² Cf. article on Gaius and Lucius, p. 340.

³ Cf. *supra*, p. 132.

⁴ Dimensions: from plinth to knee .59 m., tree-trunk .05 m. higher,—width of calf ca. .13 m.,—height of buskin .27 m.

section of the basilica in which the statue itself was found and at about the same level, there came to light a left hand grasping a sword-hilt. The hand had been broken off just above the wrist, the tip of the second finger was missing, and the hilt itself was rather battered; a large seal-ring was represented as worn on the fourth finger. Judging from the scale,¹ the material, the sword-hilt, and the place of discovery of this fragment, I think it probable that it belonged originally to the great cuirassed figure.² As in the other statues of the Corinthian group, those parts of the figure which were not intended to be seen were neglected consistently, and hence this statue also must have been placed against a wall or within a niche.

Before proceeding to a discussion of the style and technique of this work I wish briefly to call attention to several of its more striking peculiarities. Of these the most important is the shape of the cuirass at its lower edge where, instead of being adapted to the trace of the groin-line and thus extended downward to cover the abdomen as in the great majority of cases,³ it is carried straight across at the waist. This type appears to be primarily Hellenistic, although it is found occasionally in Roman art where it seems to have been reserved for officers of high rank;⁴ it is very rare, however, except in the early imperial period. Another unusual detail is to be observed in the peculiar stepped form given to the bottom of the epaulet. A final point of great interest is raised by a consideration of the helmets which are represented as resting at the base of the trophy erected by the two Victories (cf. Fig. 4). These helmets, although apparently quite commonplace, are of altogether unique form,—at least so far as I am able to judge at the present moment; they appear entirely unlike the contemporary Greek and Roman headpieces, and may well be of a foreign type rarely if ever represented in art. In itself this question is naturally of slight importance, but when we pause to consider that in a number of the more elaborately sculptured

¹ It measures .25 m. from the tip of the fingers to the break at the wrist.

² Dr. Blegen, at my request, was kind enough to re-investigate this point also. Although admitting that the hand is suitable as far as size and workmanship are concerned, he doubts that it belongs to the torso, since it would seem to give an awkward position for the arm and hand holding the sword.

³ As, for example, in a statue of Hadrian in the British Museum, Reinach, *op. cit.* I, p. 582, pl. 944, No. 2420.

⁴ Cf. W. Deonna, *Stat. de Terre Cuite dans l'Antiquité*, p. 168 f., and fig. 12; also Reinach, *op. cit.* II, p. 578, Nos. 2, 3.



FIGURE 4.—DESIGN ON BREASTPLATE: TORSO: CORINTH.

cuirasses of the period a perfectly definite historical or personal allusion is to be detected in the scenes and objects represented,¹ the possibilities latent in this apparently trivial detail are at once plain. It is my intention, however, to develop this subject in a subsequent paper dealing with the sculptural representation of arms and armor in the imperial period.

To consider now our statue as a whole (Fig. 3), one would at first sight incline to date it much later than the opening years of the first century A.D., chiefly because of the decidedly coloristic

¹ It is well known, for example, that the return of the ensigns of Crassus is commemorated on the cuirass of the Augustus of Prima Porta; cf. Daremberg et Saglio, *Dict. des Antiq. Grec et Rom.*, s.v. 'Tropaeum.'

manner in which the drapery is rendered, the deep undercutting of the flaps of the kilt, and the numerous indications of the use of the drill to produce lines or spots of shadow not purely plastic. Upon closer study, however, it seems to me apparent that these differences, as between, for example, the Gaius and the present work, are inherent in the subject rather than in the technique, since the flesh surfaces in each case show exactly the same treatment,—the same tooling, similar modelling, and the same general finish. This conclusion is borne out by the proportions of the figure itself, and even more strikingly by those of the Victories upon the breastplate. In the latter the slender neo-Attic proportions are perfectly evident, together with the rather stiff and mannered drapery, and the very self-conscious air of the figures themselves. A characteristic trick, and one of which the sculptor was apparently very fond, is seen in the baring of the outer leg of each of the Victories. In spite, therefore, of the quite evident differences exhibited by this work, a more intimate study of its style and technique places it securely in the same period and group with the Gaius and Lucius,—a conclusion amply corroborated by its place of discovery and the material of which it is made.

Here again it is, perhaps, useless to speculate as to the person originally figured by this portrait, yet to judge from the scale and the elaboration of the work, he must have been of considerable importance in the imperial family. In view further of his evident distinction in a military way, it seems plausible to suggest that he may well have been the elder Drusus, brother of Tiberius, a man who won fame as a leader of Roman armies and who died in 9 B.C. while conducting a campaign in Germany.

E. H. SWIFT.

PRINCETON UNIVERSITY.

STRUCTURAL IRON IN GREEK ARCHITECTURE

AN allusion to the employment of structural iron in Greek architecture would naturally impress us as paradoxical. We are accustomed, to be sure, to the small iron members which the Greek stone-masons substituted for mortar as a bonding material between blocks of stone. Such small members may readily be classified to form three groups: first, there were iron clamps to fasten together stones in the same course; second, there were iron dowels to fasten stones to the course below them; and third, there were iron braces, primarily to brace stones in position while they were being doweled, but never afterwards removed.¹ Yet while, at first thought, we might be tempted to regard Greek structural iron as consisting solely of dowels and clamps (a few of us might remember the braces), it is not with these that we are now concerned; I wish to discuss quite another phase of the subject, a phase more analogous to the modern use of structural steel.

We are accustomed to regard Greek construction as a simple piling up of stones, their superstructures as a simple piling up of beams. Such, for instance, is the general conclusion of the French critic Choisy. Yet, if we pause for consideration, most of us will remember instances which show a technical knowledge far in advance of what Choisy's words would imply, a technical knowledge such as Durm dismissed as "quite impossible, . . . in the manner of the late Baroque period."² For lack of space I must omit the whole field of masonry construction, with such delicate problems as those of balancing, of hollowing to diminish weight, of increasing the thickness at the weakest point. There are marble flanged beams at Samothrace which might have served as patterns for steel beams being made today in the rolling mills of Pennsylvania. I must limit myself rather to a smaller but more incongruous field, incompatible with our general notions of

¹ Concerning dowels and clamps, see Stevens, in Fowler and Wheeler, *Handbook of Greek Archaeology*, pp. 104-107; concerning braces, see Orlandos, 'Preliminary Dowels,' *A.J.A.* XIX, 1915, pp. 175-178.

² Durm, *Baukunst der Griechen* (1910), pp. 403, 545.

Greek architecture, that of construction in iron.¹ I shall cite merely a few instances, some new, others already well known, but so arranging them as to show the degree of Greek attainment in this direction.

Let me begin with some very simple instances. The acroteria at the angles of the gables, in the oldest temple of Athena on the Acropolis, as identified a few years ago by Schrader,² are merely thin slabs of marble, jointed together with mortise and tenon, a form of construction which, like that of the temple as a whole, reminds us strongly of carpentry in wood. These board-like slabs, leopards at the lower corners, a Gorgon on each apex, would hardly have stood without assistance, and this was supplied in the form of long iron stay-rods or braces, which sloped from the back of each figure down to the roof behind.

Another example of reinforcement occurred in the Theban Treasury at Delphi. The foundations of this structure, constructed of a soft limestone, were laid upon a steep slope at a point swept by the miniature river which poured down the Sacred Way on rainy days. Such foundations, though purposely made very thick (5 ft.), were in need of reinforcement, and this was provided by great iron bars, 41 ft. long on each flank, and about 18½ ft. long at each end of the building, overlapping at the corners and hooked over each other in such a way as to provide a firm rectangular frame measuring about 39½ × 17½ ft. in plan. The bars themselves were 3¼ inches high and 4 inches wide, the width being the greater because the purpose was to prevent lateral displacement. Of these bars nothing

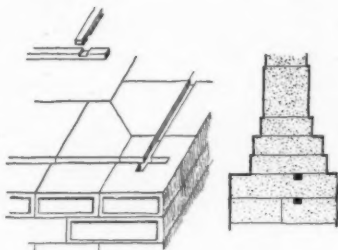


FIGURE 1.—FOUNDATION OF THEBAN TREASURY: DELPHI.

¹ An 'Essai sur l'existence d'une architecture métallique antique' was published many years ago by Charles Normand (*Encyclopédie d'Architecture*, 3rd series, II, 1883, pp. 61-80; cf. *R. Arch.*, 3rd series, VI, 1885, pp. 214-223). So far as Greek architecture is concerned, however, M. Normand speaks only of dowels and clamps, and of decorative accessories which lie outside our province.

² Schrader, *Archaische Marmor-Skulpturen im Akropolis-Museum zu Athen*, pp. 5-16; Dickins, *Catalogue of the Acropolis Museum*, I, Nos. 122, 551-555, 701.

now remains except the grooves which formed their beds in the top course of the foundation, and the weathered traces on the bottom of the lowest step of the crepidoma, which rested directly upon the bar and was doweled to it (Fig. 1).¹ And there are indications of a similar system of reinforcement in the second course of the foundation.

Quite different in purpose, acting rather as beams, were the well-known examples found in the great temple of Zeus at Acragas, in Sicily. Here each bay of the architrave, on account of its

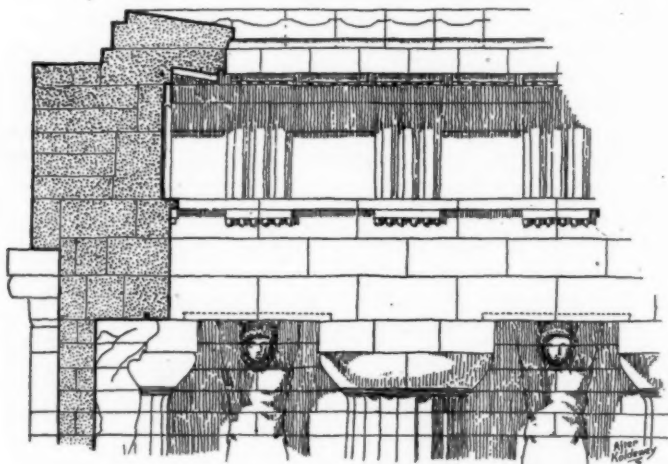


FIGURE 2.—ENTABLATURE OF OLYMPIEUM: ACRAGAS.

great length, about 26 ft. 7 $\frac{3}{4}$ inches between the centres of columns, was subdivided into three by vertical joints, one such joint coming exactly at the centre of the clear span (Fig. 2). While the intervals between the columns are filled with walls, the faces of these screen walls, in their upper portions at least, lay considerably behind the centres of the columns; and early attempts to restore the temple, on paper, did not make very clear

¹ It is the fact that the hard limestone superstructure was doweled to the bar that proves that the bar could not have been of wood, as was thought by earlier observers (*B.C.H.* 1910, p. 190; *B.C.H.* 1911, p. 160; *Berl. Phil. Woch* 1911, col. 1615). For my restoration of iron bars, see *B.C.H.* 1912, pp. 453-455.

the method by which the overhanging portion of the architrave would have been supported. For the architrave, with its joint at the centre of the free span, projected 6 ft. 7 inches beyond the face of the screen wall. It was here that the figures of Atlantes, 25 ft. 2 inches high, hitherto assigned to positions within the temple, were eventually located by Koldewey and Puchstein.¹ Even with this arrangement, which is undoubtedly the correct one, the outer face of the architrave remains unsupported. But along the lower surface of these outer architrave blocks runs a groove, 4 inches wide and 8½ inches high. Durm still regards this as a rope cutting for use while the blocks were being hoisted,² even though Koldewey and Puchstein had already pointed out the fact that the cuttings did not continue for the entire length of the stone, but reached only 21½ inches beyond the edge of the abacus, giving a total length of 14½ ft. Cockerell had thought that these cuttings were for beams of hard wood,³ but Hittorff recognized traces of iron rust.⁴ We have, therefore, a clear case of an iron beam laid across the interval between the capitals of the columns, with the stone superstructure built upon it. On account of the form of construction, this iron beam was necessarily in the exposed soffit of the stone architrave; but it would have been possible to conceal it by means of stucco. Thirty-eight of these beams would have been required in the peristyle.

At one point in the Erechtheum at Athens we find a similar form of construction: the lintel of the subterranean doorway leading to the crypt under the North Porch, though only 20 inches high and 3 ft. 6 inches wide, carries the entire north wall of the building across a span of 2 ft. 5 inches. This lintel was reinforced by inserting in its bottom an iron bar, sealed with lead while the lintel was still loose and upside down on the ground; the iron beam, furthermore, is still in place, and, therefore, its height and length cannot be ascertained. It would have been far better to have placed the iron in the top of the marble lintel, not merely because it would thus have been concealed from view (for in this subterranean doorway we are not concerned with

¹ Koldewey and Puchstein, *Die Griechischen Tempel in Unteritalien und Sicilien*, pp. 158-162.

² Durm, *Baukunst der Griechen* (1910), pp. 402-404.

³ *Antiquities of Athens*, V, ch. I, p. 8 and pl. 5.

⁴ Hittorff and Zanth, *Architecture antique de la Sicile*, pp. 310, 566, pl. 89, fig. 5.

finish), but because of a vital constructive defect. The marble, more brittle than the iron, naturally cracked before the weight of the superincumbent wall could be transmitted to the more flexible iron beam.

Far more scientific is the system adopted in the Propylaea at Athens. Here the Ionic architrave of the main hall is, in section, composed of two marble blocks each about 20 inches thick and 2 ft. 9½ inches high, set on edge, back to back. Each supports marble ceiling beams coming not merely above the Ionic columns but also exactly at the centre of the span (Fig. 3). The total weight of half of one of these ceiling beams with its load of coffers was 6¾ tons. Here again the architect did not trust his marble. Therefore on the top of the Ionic architrave he cut a groove nearly 5½ inches deep and 3 inches wide, and half the length of the architrave, just 6 ft.; the groove has a shoulder cut at each end, about 3¼ inches long, and rising 1 inch above the bottom of the groove. In this groove, as was discovered by Mr. Balanos, the architect in charge of the modern reconstruction,¹ was placed a solid rectangular iron beam, which transmitted the weight of the central ceiling beam to the two shoulders 5 ft. 5½ inches apart, where it could be cared for by the capitals of the Ionic columns. It is to be noted that the length of the iron beam was made as short as would be consistent with this purpose; by terminating it at a distance of 3 ft. from each end of the architrave, it was possible to use a lighter section than would have been the case had the iron reached from end to end of the marble architrave. And since, in this interval between the shoulders, the groove was cut 1 inch deeper than the bottom of the iron beam, the latter, not being sealed with lead, was perfectly free to deflect under the weight of the marble ceiling beam. Of these iron beams, of which sixteen were employed in the hall, only the rusted traces now appear in the grooves. To ensure the transmission of the weight directly to the iron beam, two copper plates about 2 inches square were placed on the iron beam and upon these rested the marble beam; the stains of the copper are still visible on the bottom of the marble. The central portion of the Ionic architrave, therefore, supported nothing but its own weight.

Since in this case we know all the details of weights and dimensions, it may be of interest to quote the results. That the Greeks

¹ Balanos, *Actes du seizième Congrès International des Orientalistes*, 1912, p. 44; cf. Karo, *Arch. Anz.* 1912, p. 236.

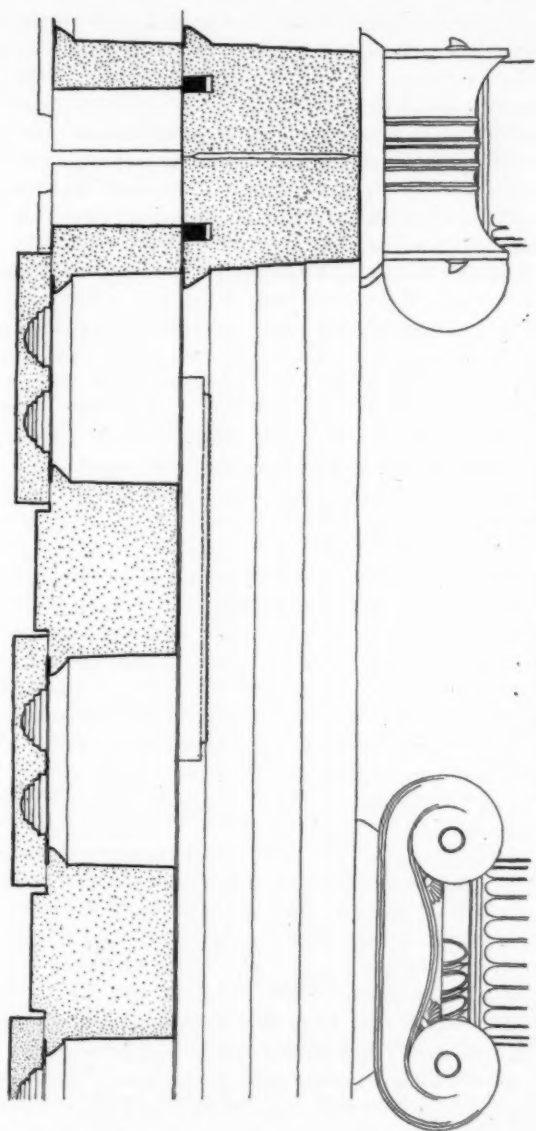


FIGURE 3.—IONIC CEILING OF PROPYLAEA: ATHENS.

were timid with regard to stone construction, and erred on the side of safety, is a fact that has long been apparent.¹ This is another case in point. If an Ionic architrave of this character were being erected at the present day, we should not object to a maximum fibre stress (the tension occurring in the outermost particles at the bottom of the architrave) amounting to as much as 120 pounds per square inch of section. Now if Mnesicles, the architect of the Propylaea, had taken no precautions at all, and had not inserted the iron beam, the maximum stress in the Ionic architrave would have been only 103 pounds per square inch, a stress with which the marble would have been quite able to cope.² But on account of timidity he inserted the iron beam, and thereby reduced the maximum stress in the marble to 57 pounds per square inch, about half of the modern allowance. Such was the stress in the marble below the iron beam, but how about the iron beam itself? Here modern practice would not justify a greater maximum stress than 12,000 pounds per square inch; in the Propylaea, however, the actual stress was 17,500 pounds per square inch. In iron, therefore, it would appear that Mnesicles was far from timid; but his timidity may be attributed to ignorance. There was, however, no question of collapse; he used one third rather than one quarter of the breaking strength of wrought iron.

It was with such marble ceilings that the Greek architects appear to have experienced the greatest difficulties, which they overcame, to their own satisfaction at least, by the use of concealed iron beams. The result, in the case of the Propylaea, was eulogized as follows by Pausanias: "The portal has a roof of white marble, and for the beauty and size of the blocks it has never yet been matched."³ Let us now turn to another example which Pausanias regarded with almost equal admiration: at Bassae, as he states, is "the temple of Apollo Epicurius, built of stone, roof and all; of all the temples in the Peloponnesus, next to the one at Tegea, this may be placed first for the beauty of the stone and the symmetry of its proportions."⁴ Again emphasis is laid on the employment of stone throughout, and with reason; for the temple at Bassae, the first work of Ictinus, dating from about 450

¹ Carpenter, *The Esthetic Basis of Greek Art*, pp. 159, 260.

² In the marble ceiling beams themselves the maximum fibre stress rose even to 185 pounds per square inch, considerably more than the limit of present day practice.

³ Pausanias, I, 22, 4.

⁴ Pausanias, VIII, 41, 7-8.

B.C., marks the beginning of the substitution of marble ceilings for the wooden ceilings hitherto used in external porticoes.

At Bassae, therefore, the marble ceiling was an experiment and in its design the timidity of the architect is quite apparent. The end porticoes, furthermore, are exceptionally deep, two full intercolumniations; for the columns and antae of the inner porches are aligned with the third column on each flank of the peristyle. As a result, the maximum clear span of the ceiling beams of the external portico, from the inner face of the entablature of the façade to the outer face of that of the pronaos, amounts to 13 ft. 2 $\frac{1}{4}$ inches. Now the ceiling beams, of marble, were assigned a width of 2 ft. 2 $\frac{3}{8}$ inches and a height of 12 $\frac{3}{4}$ inches, so that if they had been solid they would have weighed 5,460 pounds in the clear span; they carried, furthermore, ceiling coffers weighing (on the outermost beams) about 220 pounds per running foot, contributing an additional load of 2,900 pounds. Under such circumstances, the maximum fibre stress, the tension at the bottom of the ceiling beam, would have amounted to 231 pounds per square inch, twice as much as we should regard as permissible. Ictinus, too, was unfavorably impressed by the result, and attempted to remedy the situation by hollowing the tops of the ceiling beams, transforming them into mere shells, about 4 inches thick on each side and only 3 $\frac{1}{4}$ inches thick at the bottom (Fig. 4). In other words, he removed more than half of the section of the ceiling beam, reducing its weight, in the clear span, from 5,460 to 2,630 pounds.

What was the exact purpose of this reduction of the weight? Cockerell, without further reflection, merely remarked that "these are hollowed, in order to diminish their weight . . . and secure their duration, which was not the case in those of the Propylaea."¹ But analysis of the resulting forces shows that by such a process Ictinus would not have improved the situation in

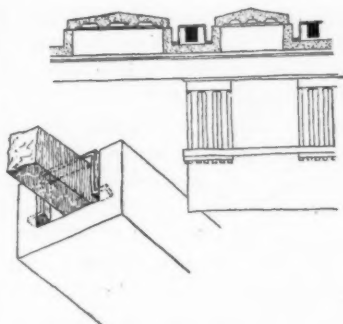


FIGURE 4.—PERISTYLE CEILING:
TEMPLE AT BASSAE.

¹ Cockerell, *Aegina and Bassae*, pp. 51, 54.

the least. The beam is lightened, to be sure, but it is also weakened to such a degree that the maximum fibre stress is still 227 pounds per square inch, practically identical with what it was before the so-called precaution was taken. This is not the way in which a Greek would have worked; he would rather have retained the full section of the marble beam, stiffening it by adding a tall flange or ridge along the top which increased its height but was invisible from below. We must seek another explanation of the hollowing of the beam. And such an explanation is suggested by the striking similarity (of course not apparent to Cockerell) between this marble beam section and modern forms of terra-cotta and stone used for the casing of steel beams. At Bassae, as in so much of our modern work, we have apparent marble beams which were in reality mere shells, the true supports of the ceiling having been iron beams which formed their core. The purpose of the reduction of the weight, by omitting more than half of the section of the marble beam, was, of course, to diminish the load carried by the iron beam, so that this, in turn, could be made lighter. There must have been hangers or straps of some sort, in order to secure the marble casing to the iron beam. And of such iron beams, of simple rectangular section, about 15 ft. in length, there must have been eighteen examples at Bassae, or even more if we can follow Pausanias literally and assume that the ceilings of the inner porticoes and of the cella were likewise of marble. Of actual remains of these iron beams, however, we have no traces.¹

Another type of iron beam employed by the Greeks is the cantilever, a beam of which one end is firmly imbedded in a wall, while the other end is unsupported, even though the load may be placed upon this free end. The load is counterweighted by the wall in which the other end is imbedded. The most notable examples occur in the Parthenon, where in the pediment floors we find, near the centre, grooves varying in width from $4\frac{1}{2}$ to 11 inches, extending from the face of the tympanum almost to the front edge of the cornice (Fig. 5). In some cases they are at right angles to the face of the tympanum, while others are oblique. There are five of these grooves in each pediment, all grouped near the centre; and their purpose obviously was to contain iron cantilever beams, which should support the heavier statues at the middle of the pediment, and thus take the weight off the overhanging portion of the

¹ The broken fragments of the hollowed marble beams should reveal, if carefully examined, traces of some method of attachment to the iron.

marble cornice.¹ In order to permit them to function in this manner, the cantilevers were laid directly on the top of the marble cornice, and ran back under the tympanum, according to the traces of rust, for 12 or 16 inches; to fit over them, corresponding cuttings were worked in the bottoms of the tympanum slabs, which thus straddled and firmly weighted the inner ends of the beams. It is from the cuttings in the tympanum blocks that we learn the height of the cantilevers, between $2\frac{1}{2}$ and 5 inches.² Directly under the face of the tympanum, the pediment floor is sharply cut down to a depth of about 2 inches, and for a width corresponding to that of the iron cantilever; here, therefore, was the point of support of the cantilever, well inside the face of the entablature below. About 5 inches outside the face of the tympanum, and, therefore, practically over the face of the entablature below, is an additional drop of about $\frac{1}{2}$ inch, so that the outer end of the cantilever was free to bend as much as $2\frac{1}{2}$ inches before coming in contact with the cornice. Probably, however, they were not intended to bend so much; for we must assume that the marble statues did not rest loosely upon the cantilevers, but were grooved to a depth of about 1 inch to prevent lateral displacement; and thus if the cantilever were deflected even as much as $1\frac{1}{2}$ inches the statue would begin to throw its weight upon the marble cornice. As it happens, the statues from the central portions of the pediments are not sufficiently preserved to reveal their adjustment to the cantilevers. Nor are the cantilevers themselves preserved; nothing now remains but the cuttings and the traces of rust. These cantilevers were concealed from view by the fact that they terminated about

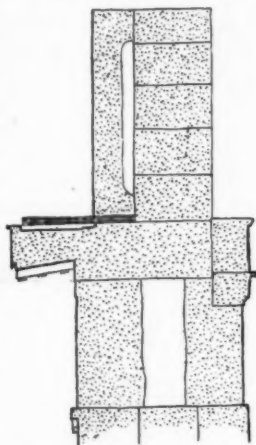


FIGURE 5.—PEDIMENT FLOOR OF THE PARTHENON.

¹ These beam cuttings are discussed by Penrose, *Athenian Architecture*, pp. 46-47, pl. 18; Michaelis, *Parthenon*, pp. 152, 172, 189, pl. 6-7; Sauer, *Antike Denkmäler*, I, pp. 49-51, pl. 58 A-C; Lethaby, *Greek Buildings*, p. 74.

² Two additional cuttings in the tympanum blocks of the west pediment, north of the five grooves, were apparently never used, since there are no traces of rust and no corresponding grooves in the pediment floor.

2 ft. 9 inches outside the face of the tympanum, and so about 5 inches behind the face of the cornice. But they were not protected from the elements, if we may judge from the abundant traces of rust; though possibly they were originally coated with molten lead.

Another example of cantilever construction is to be found in a late temple at Acragas, the so-called Temple of Castor and Pollux. Here the sima above the cornice is of remarkably heavy proportions; and since the material employed was a coarse limestone,

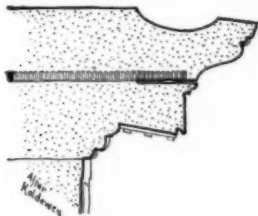


FIGURE 6.—CORNICE OF THE TEMPLE OF CASTOR AND POLLUX: ACRAGAS.

elaborate precautions were taken lest the overhanging portion of the cornice be split off (Fig. 6). In the first place, the entire top of the cornice itself, from the nosing to a line about 16 inches behind it, was cut down to a depth of nearly $\frac{1}{2}$ inch. Then, to ensure the relief of the cornice, slender iron cantilevers, nearly $2\frac{1}{2}$ inches high, widening toward the top, were dovetailed at intervals into the bot-

tom of the sima, running from back to front, or, in the case of the angle blocks, diagonally, but always terminating about $3\frac{1}{2}$ inches from the face of the sima in order that they might remain concealed.¹

From these isolated instances it is possible to conclude that the Greeks did not hesitate, whenever they were doubtful of the stability of masonry, to employ concealed structural iron very much as we are doing in modern times. That they had any precise knowledge of the properties of wrought iron it is difficult to assume. For in the Propylaea, at least, they strained it beyond a limit which we should regard as justifiable, and this in order to relieve marble which was actually quite capable of supporting the load. It is, to be sure, false construction; it would not be commended by the purist; but the Greeks were, after all, quite human, and from the study of their experiments, their failures and subterfuges, we can learn almost as much as from their successes.

WILLIAM BELL DINSMOOR.

COLUMBIA UNIVERSITY,
NEW YORK

¹ For this example, see Koldewey and Puchstein, *op. cit.* p. 179.

THE ICONOGRAPHY OF THE SACRIFICE OF ISAAC
IN EARLY CHRISTIAN ART

A NARRATIVE with such possibilities for instruction as that of the Sacrifice of Isaac was not to be neglected by the Church. Here was an instance of faith rewarded, a proof that souls trusting in divine mercy should have renewed and continued life, and an assurance that the course of safety lay in placing themselves in the hands of God. *Ei enim qui fideliter sacrificat dies lucet, nox nulla est.*¹ The transcendent importance of the story, however, rested in the fact that as set forth in the twenty-second chapter of Genesis it presented, to the early churchman's symbol-seeking mind, an almost exact parallel to the passion of Christ. *Isaac ergo Christi passuri est typus.*²

The Church Fathers, Irenaeus,³ Tertullian,⁴ Ephraim,⁵ Isidore of Seville,⁶ and others too numerous to cite, occupied themselves with studying the parallel and enlarging upon it. Like Christ Isaac was a beloved only son offered as a consummate yet willing sacrifice by his father. The place of sacrifice in both instances was upon a hill. *Signa Isaac sibi vexit, Christus sibi patibulum crucis portavit.*⁷ The thorns of the bush in which the ram was caught represented the thorns of Christ. No smallest detail that might contribute to the parallel escaped the eager interpreter. The ram in the bush was Christ on the Cross, Isaac was Christ in the Eucharist.

The most potent acknowledgment of similarity between the sacrifices was the introduction of the Sacrifice of Isaac into the Mass, where there is repeated mention of it. When the priest extends his hands over the host he prays: *Supra quae propitio ac sereno vultu respicere digneris et accepta habere, sicuti accepta*

¹ Ambrose, *De Cain et Abel* I, cap. VIII.

² Ambrose, *De Abraham* I, cap. VIII.

³ *Adversus Haereses* IV, cap. V.

⁴ *Liber adv. Judaeos*, Rome, 1737, cap. X.

⁵ *In Genes*, Opera I, *Liber adv. Judaeos*, cap. X, p. 77.

⁶ *Allegoriae* n. 20.

⁷ Ambrose, *De Abraham* I, cap. VIII.

habere dignatus es munera pueri justi Abel et sacrificium Patriarchae nostri Abrahæ. In the sequence of Corpus Christi there is reference to the story. On Holy Saturday the third "prophecy" read between the lighting of the Paschal Candle and blessing of the Font is based on the Sacrifice of Isaac.

As is to be expected, a story regarded as of such importance by the Church had frequent representation in Early Christian art. It is depicted on Early Christian monuments of all classes; frescoes, sarcophagi, mosaics, glasses, gems, and lamps.

The purpose of this article is to list the existing representations upon these monuments, to isolate the types or schools indicated



FIGURE 1.—SACRIFICE OF ISAAC: FRESCO IN CATACOMB OF SS. PIETRO E MARCELLINO: ROME.

by the variations of the iconography and incidentally to show the bearing of the data thus gained on the question of the provenance of a little monument of prime importance in the history of Early Christian art, viz. the ivory pyx in Berlin.

The earliest artistic renderings of the scene are found among Roman catacomb frescoes, which may be regarded as reflecting the primitive or Hellenistic base upon which Early Christian representations were constructed.

THE CATACOMB FRESCOS

Not including fragments, examples of the scene in the catacomb frescoes fall roughly into three divisions. The first of these contains paintings showing the approach to the Sacrifice in which Abraham leads Isaac, bearing faggots, towards the altar as on a fresco of the Coemeterium Maius (No. 2); or Isaac approaches with the bundle of sticks, Abraham having preceded him to the

place of offering. An example of the latter version is found in Priscilla (No. 6).

The second or orant division of the Sacrifice frescoes includes two paintings. In one of these, in a catacomb under the Vigna Massimo (No. 10) Abraham is upon a pedestal and Isaac stands near at hand, both figures in orant attitude. They are again found as orants in a well-preserved S. Callisto fresco (No. 9); here the ram is shown and also a bundle of faggots to indicate a scene of immolation.

These types, not being illustrative of the sacrifice itself, were not perpetuated though the detail of Isaac carrying the sticks appears later as an adjunct to representations of the scene. The type that survived was a third one exemplified by a third century painting (Fig. 1) in SS. Pietro e Marcellino (No. 14).

The general features of this third division are that Abraham is shown about to sacrifice Isaac while the latter stands or kneels on the ground beside the altar. Sometimes Abraham grasps Isaac by the hair. Occasionally the ram is added to the scene and in the later paintings the Hand of God emerges from above.

This as the earliest and at the same time the commonest form of the scene in Early Christian Art, undoubtedly reflects its original visualization and may be called the Hellenistic type. The strength of tradition which it represents is attested by its occasional emergence in Byzantine iconography, but it is chiefly found, after its first appearance in the catacombs, on sarcophagi of western type of Rome, Gaul, and Spain, persisting also, as the list of monuments shows, on objects of widely diversified material and provenance.

THE HELLENISTIC TYPE

An examination of the story as depicted on these sarcophagi and other art objects shows but little variety in form. The Hellenistic tradition of simplicity and lack of realism holds true throughout. On the Roman sarcophagi Abraham wears either



FIGURE 2.—SACRIFICE OF ISAAC: SARCOPHAGUS IN S. AMBROGIO: MILAN.



FIGURE 3.—SACRIFICE OF ISAAC: FRESCO AT EL BAGAWAT.

tunic and *pallium* or *exomis*. Usually he is bearded. Holding the knife in his right hand, with his left he often grasps the head of Isaac who kneels on the ground or stands beside the lighted box-shaped altar with hands shackled as Christ's were in the apocryphal version of the Crucifixion.¹ Frequently the Hand of God is introduced, in which case Abraham turns his head towards it as on a Lateran sarcophagus from the Cemetery of Lucina (No. 59) and the ram is almost invariably present.

For the most part the Gallic sarcophagi render the scene as it appears on the Roman monuments but with a more unvarying completeness of detail. Certain differences in form of the scene, however, are apparent. On the Gallic sarcophagi, more often than on the Roman, Abraham is beardless. On the former he always wears short draperies, usually the *exomis*, except on a

¹ *Evang. Nicodemi*, ed. Tischendorf, p. 282.

curious sarcophagus at Mas-d'Aire (No. 45) where he and Isaac are dressed in short, belted tunics, and in the scene upon two other examples at St. Maximin (Nos. 81 and 82) where he is clad in long draperies and the general execution suggests the handiwork of some Eastern workman employed in a local atelier.

The monuments showing this type of the Sacrifice of Isaac, are of western origin with very few exceptions, and the type itself appears first in the catacombs of Rome. It may be regarded then as the western version of the Hellenistic type and as such to be distinguished from another, evidently derived from the same prototype, but differing persistently in one detail. This variant of the Hellenistic type appears, with but two exceptions (Nos. 101 and 111) solely upon sarcophagi which show strong Eastern influence in style and iconography and particularly in their preservation of the old Asiatic architectural decoration of the front (arcades, divided by columns or trees; alternating gables and arches; horizontal entablatures; mixtures of all three). These have been regarded by Wulff as exported *en bloc* from some centre of southeastern Asia Minor.¹ In any case they are clearly distinguished by style and their peculiar iconography from the Western type of sarcophagus with uninterrupted frieze, and are in some way connected by the same characteristics with Asia Minor.²



FIGURE 4.—ALTAR FROM ALEXANDRIA.

THE ASIATIC-HELLENISTIC TYPE

The Abraham of this type always wears long draperies. He grasps the knife with his right hand and turns his face towards the Hand of God emerging from above which is an omnipresent detail

¹ *Altchristliche und Byz. Kunst*, p. 110.

² I am confirmed in this by C. R. Morey whose study of the Asiatic sarcophagi of columnar type in the imperial period, to be published shortly, has convinced him that the Christian columnar types are continuations of the various forms of the well-known Sidamara sarcophagi of Asia Minor.

in this form of the scene. Sometimes his left hand rests upon Isaac's head. The presence or absence of ram and tree are insignificant variations as in the Hellenistic type. The detail which differentiates the Asiatic-Hellenistic from the western Hellenistic representations is that Isaac is always on the altar instead of

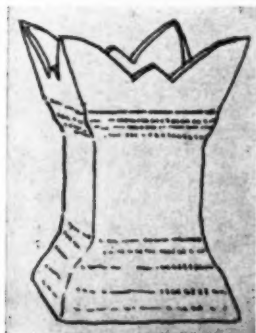


FIGURE 5.—TERRA-COTTA
ALTAR OF IMPERIAL
PERIOD: ALEXANDRIA.

standing or kneeling on the ground; the representation thus follows, with that preference for literal rendering usually found in Eastern iconography, the *posuit eum* (Isaac) *in altare* of Gen. XXII. In the scene of sacrifice on a sarcophagus of the "city gate" variety (Fig. 2) in S. Ambrogio at Milan (No. 105) and upon two others in Paris (No. 106) and the Grotte Vaticane (No. 108) closely resembling it, Isaac kneels upon an altar of pagan form decorated with vase and patera. Other renderings of the scene as upon a gable-and-arch sarcophagus in the Lateran (No. 109) and a seven niche example at Madrid (No. 103), show

him sitting upon the altar.¹

Another transformation of the original Hellenistic type was effected in Egypt. Following the nomenclature established by E. B. Smith in his *Early Christian Iconography* I have called this the Alexandrian-Coptic type, since its examples are partly from Alexandria and belong in part to the Coptic art of Upper Egypt.

THE ALEXANDRIAN-COPTIC TYPE

Of Coptic frescoes at El Bagawat illustrating the story of the sacrifice only one (Fig. 3), in the Chapel decorated with Biblical Scenes (No. 112) remains complete. In it Abraham, bearded and frontal, wears flowing white draperies. He grasps the knife with his right hand and rests his left upon the head of Isaac who is clad in a white tunic and stands holding a small box. In the background is Sara with a similar box and behind Abraham ap-

¹ In the Sacrifice of Isaac upon an Eastern carved gem in the Bibliothèque Nationale described as of the Early Christian period by Chabouillet in his *Cat. gén. et raisonnée des Camées*, p. 191. Isaac is lying upon the altar.

pears the Hand of God. On the ground stands the altar, the form of which is important as found only in the Alexandrian-Coptic type and its derivatives. The altar is cup-shaped and denticulated on its upper edge, corresponding in form to an actual grave-altar found in Alexandria itself (Fig. 4), and almost identical with a terra-cotta altar found in a tomb of the imperial period, also at Alexandria, which is described by Thiersch ('Zwei Gräber der röm. Kaiserzeit in Gabbari Alexandria' in *Bull. Soc. Arch. d'Alexandrie* 1900, 3, p. 21), as "ein Altärchen . . . mit dem für den Isiskult bezeugten Zackenrand" (Fig. 5).¹ The remains of a similar altar, this time placed upon a platform approached by steps, are found in the scene of sacrifice as shown on an ivory pyx of the fifth century in the Bologna Museum (No. 116), which, in its figures suggests the fresco (Fig. 6). Abraham, bearded, faces the left. He holds the knife in his right hand and rests his left on the head of Isaac, undraped here. At Abraham's right are the



FIGURE 6.—SACRIFICE OF ISAAC: PYX IN MUSEO CIVICO: BOLOGNA.

ram and an acacia (?) tree. Very like the scene on this ivory is that upon another pyx of later date in the Museo delle Terme (No. 117) though in it Isaac wears a short tunic and the altar, intended to imitate the Bologna form, takes the shape of a pillar upon stepped base and terminates in a denticulated capital. The ram which is below a tree at Abraham's right appears again, with an angel added to the scene; all these details are curiously detached like words awaiting combination into a sentence. This pyx is of rougher workmanship than the Bologna ivory and of even cruder execution is a bone fragment, from Alexandria, in the Kaiser Friedrich Museum at Berlin (No. 115) which shows only the figures of Abraham and Isaac. It is, however, so palpably a replica of the examples mentioned that despite incompleteness it must be admitted to this group, adding thus another indication as to the provenance of the type.

¹ This form of altar is also identified as Alexandrian by Rostowzew (*Röm. Mitt.* 1911, p. 66), who cites further examples (figs. 33, 37, 38).

Although these three monuments have a distinct connection with the El Bagawat fresco the discrepancies suggest that a link is missing. The link is supplied by another ivory of finer craftsmanship than those cited, viz. the Berlin pyx (No. 114) which gives the prototype from which the others were derived (Fig. 7). In the rendering of the scene of sacrifice on this pyx Abraham, bearded and in flowing draperies holds the knife in his right



FIGURE 7.—SACRIFICE OF ISAAC: PYX IN BERLIN.

hand while with his left he grasps the head of Isaac, undraped, who with hands shackled behind his back and with legs crossed, stands in frontal posture upon the steps leading up to the cup-shaped, and denticulated altar. At Abraham's right are the ram and an angel while the Hand of God emerges from above.

Thus we arrive at a sequence,—the El Bagawat fresco, the Berlin pyx, the Alexandrian fragment, the Bologna ivory, and the Terme pyx,—completely illustrating the evolution of the Alexandrian-Coptic type. In this series of monuments the iconography of the scene maintains consistently the characteristic features of the type: the bearded Abraham in flowing draperies, the frontal Isaac, and the cup-shaped and denticulated altar. Their similarity to the Coptic El Bagawat fresco shows the other four monuments to be of Egyptian origin, as, indeed, is already indicated by the Alexandrian provenance of the Berlin fragments. The type of altar used in the scene of sacrifice upon them confirms the connection with Alexandria and thereby is furnished the first evidence of definite character on which the Berlin pyx can be assigned to that city.

THE PALESTINIAN-COPTIC TYPE

A sixth century miniature of the Etschmiadzin Evangeliary (No. 118), imitating some model like the scene on the Berlin pyx, shows a Sacrifice of Isaac of the Alexandrian Coptic type and is very Coptic in style, but certain added details stamp it as the work of an Eastern artist of another centre who may have been imitating an Egyptian model. Isaac wears a long tunic, which is a new feature in the scene, and stands on the steps leading up to the denticulated and cup-shaped altar. Abraham is of the Eastern Hellenistic type, in long draperies, but wears the nimbus which is a common characteristic of figures in other scenes of Palestinian-Coptic iconography (Fig. 8).¹ The ram, at Abraham's right, is rendered as usual except that it wears a collar. Thus far the differences between this representation and those of the Alexandrian-Coptic type are minor variations. The Etschmiadzin scene of sacrifice possesses, however, one added iconographic feature which never appears in the pure Alexandrian-Coptic type. This detail, a cypress tree, seems to be of Syro-Palestinian origin, as it appears again in the Sacrifice of Isaac upon a lamp from Jerusalem (No. 119) where the scene is otherwise similar to Alexandrian-Coptic representations. Abraham, bearded and in long draperies, with head turned toward the Hand of God emerging



FIGURE 8.—SACRIFICE OF ISAAC: MINIATURE OF THE ETSCHMIADZIN EVANGELIARY.

from the Hand of God emerging from the clouds. Thus far the differences between this representation and those of the Alexandrian-Coptic type are minor variations. The Etschmiadzin scene of sacrifice possesses, however, one added iconographic feature which never appears in the pure Alexandrian-Coptic type. This detail, a cypress tree, seems to be of Syro-Palestinian origin, as it appears again in the Sacrifice of Isaac upon a lamp from Jerusalem (No. 119) where the scene is otherwise similar to Alexandrian-Coptic representations. Abraham, bearded and in long draperies, with head turned toward the Hand of God emerging

¹ E. Baldwin Smith: *Early Christian Iconography*, Tables IV and V.

from the sky, stands ready to sacrifice Isaac. Isaac is undraped and, owing probably to the shape of the lamp, kneels upon the ground. At Abraham's right is the cypress tree and balancing it on the other side of the scene is an apparent imitation of the Alexandrian altar standing on the ground, behind which is a pillar, possessing possibly some local significance.



FIGURE 9.—SACRIFICE OF ISAAC: MOSAIC IN S. VITALE: RAVENNA.

THE BYZANTINE TYPE

Representations of the Sacrifice of Isaac reached their greatest elaboration of detail in Byzantine art, but they are rather combinations of details gathered from the Early Christian types which had preceded them than new forms. This is, perhaps, due to the infrequency of the scene in the early Byzantine period because the Crucifixion, which it had symbolized, began to appear upon monuments at this time.

In a sixth century mosaic, in S. Vitale at Ravenna (No. 121), the scene is rendered in the Asiatic-Hellenistic manner with Isaac on the altar (Fig. 9). The Hand of God appears from above.

Abraham, bearded and in flowing draperies, is about to sacrifice Isaac and grasps him by the hair. The ram stands at Abraham's right. In a seventh century miniature of the Vatican Codex of Cosmas Indicopleustes (No. 123) a nimbed and heavily draped Abraham grasps Isaac by the hair, as he kneels on the ground, but the scene here is more detailed than in S. Vitale. Above and at Abraham's right are the Hand of God and a ray of light. At his left is the ram tethered to a bush. Adjoining the scene is Isaac approaching with the faggots, and two servants with a mule, showing the customary Byzantine attempt to follow closely, in art, the written description of scenes. On an amulet in Paris (No. 120) and again in a miniature of the twelfth century Vatican Octateuch (No. 122) Abraham grasps Isaac by the hair and the ram is tethered to a bush. These features though they may be found in other types of the scene are particularly characteristic of the Byzantine iconography of the sacrifice.

Further discussion of the sacrifice as rendered in later periods does not lie within the province of this study but it is interesting to observe that a cursory examination of western monuments down to the fifteenth century seems to show an almost universal adoption of the Asiatic-Hellenistic Isaac on the altar in representations of the scene. From the sixth to the eleventh century the sacrifice was seldom reproduced in art, but during the four centuries following that period it had renewed and widespread popularity in representation, owing no doubt to a revival of interest in its symbolic connotations.

LIST OF MONUMENTS¹

Catacomb Frescoes

Type I

- (1) Rome, Cat. "dei Giordani," IV Century, Wilpert: Pitt. 327-22.
- (2) Rome, Coemeterium Maius, IV Century, Wilpert: Pitt. 326-17, Tav. 222-1.
- (3) Rome, S. Ermete, III Century, Wilpert: Pitt. Tav. 114.
- (4) Rome, SS. Marco e Marcelliano, IV Century, Wilpert: Pitt. 326-16, Tav. 216-2.
- (5) Rome, SS. Pietro e Marcellino, III-IV Century, Wilpert: Pitt. 323-3, Tav. 73.
- (6) Rome, Priscilla, III Century, Wilpert: Pitt. 323-4, Tav. 78-2.
- (7) Rome, S. Tecla, IV Century, Wilpert: Pitt. 327-19, Tav. 235.
- (8) Rome, Trasona, IV Century, Wilpert: Pitt. 325-11, Tav. 164-2.

Type II

- (9) Rome, S. Callisto, Cappella dei Sacramenti, II Century, Wilpert: Pitt. 323-2, Tav. 41-2.
- (10) Rome, Vigna Massimo, IV Century, G. II, pl. 69-3.

Type III

- (11) Rome, Domitilla, IV Century, Wilpert: Pitt. 326, Tav. 201.
- (12) Rome, Domitilla, IV Century, Wilpert: Pitt. 325-13, Tav. 196.
- (13) Rome, Coemeterium Maius, IV Century, Wilpert: Pitt. 327-18, Tav. 220.
- (14) Rome, SS. Pietro e Marcellino, III Century, G. II, pl. 48-1 (Fig. 1).
- (15) Rome, SS. Pietro e Marcellino, IV Century, Wilpert: Pitt. 324-8, Tav. 129.
- (16) Rome, SS. Pietro e Marcellino, IV Century, Wilpert: Pitt. Tav. 188-1.
- (17) Rome, Priscilla, Cappella Greca, II Century, Wilpert: F., pl. 10.

Fragments

- (18) Rome, S. Callisto, IV Century, De Rossi, III, pl. VIII, 1.
- (19) Rome, Domitilla, IV Century, Wilpert: Pitt. 326-15, Tav. 201-3.

¹ABBREVIATIONS USED IN LIST OF MONUMENTS

BOCK = Bock: *Matériaux pour servir à l'archéologie de l'Égypte chrétienne*; CABROL = Cabrol: *Dictionnaire de l'archéologie chrétienne et de liturgie*; DE ROSSI = De Rossi: *Roma Sotteranea cristiana*; FURTWÄNGLER = Furtwängler: *Antike Gemmen*; G. = Garrucci: *Storia dell'arte cristiana*; GR. = Grousset: *Catalogue des sarcophages chrétiens de Rome*; KISA = Kisa: *Das Glas im Altertum*; KRAUS = Kraus: *Geschichte der christlichen Kunst*; LE BLANT: A. = Le Blant: *Les sarcophages chrétiens antiques de la ville d'Arles*; LE BLANT: G. = Le Blant: *Les sarcophages chrétiens de la Gaule*; M. = Marucchi: *I monumenti del Museo cristiano Pio-Lateranense*; SCAVI = Scavi di Antichità dei Lincei; STRZYGOWSKI: B. = Strzygowski: *Byzantinische Denkmäler*; STRZYGOWSKI: H. = Strzygowski: *Hellenistische und Koptische Kunst*; STUHLFAUTH = Stuhlfauth: *Die Altchristliche Elfenbeinplastik*; VENTURI = Venturi: *Storia dell'arte Italiana*; VÖGE = Vöge: Kgl. Museen zu Berlin, Zweite Auflage, *Die Elfenbeinbildwerke*; WILPERT: Pitt. = Wilpert: *Pitture delle Catacombe Romane*; WILPERT: F. = Wilpert: *Fractio Panis*; WULFF = Wulff: Kgl. Museen zu Berlin, *Beschreibung III*.

- (20) Rome, Domitilla, IV Century, Wilpert: Pitt. 324-9, Tav. 139-1.
 (21) Rome, Generosa, V Century, Wilpert: Pitt. 327-21.
 (22) Rome, SS. Pietro e Marcellino, III Century, Wilpert: Pitt. 324-6, Tav. 105-2.

The Hellenistic Type

- (23) Arles, Mus., Sarcophagus, IV-V Century, G. V, pl. 310-4.
 (24) Arles, Mus., Sarcophagus, IV-V Century, G. V, pl. 366-3.
 (25) Arles, Mus., Sarcophagus, IV-V Century, G. V, pl. 378-3.
 (26) Arles, Mus., Sarcophagus (frag.), IV-V Century, Le Blant: A., p. 54.
 (27) Astorga, Cath., Sarcophagus, IV-V Century, G. V, pl. 314-6.
 (28) Athens, Lamp, IV-V Century, Max Bauer: *Tonlampen*, p. 35.
 (29) Bagnols, Astier Coll., Sarcophagus, IV-V Century, G. V, pl. 378-4.
 (30) Cairo, Mus., Relief (frag.), IV-V Century, Strzykowski: H., No. 8759, pl. 163.
 (31) Carthage, Lamp, IV Century, *Röm. Mitt.*, 1898, pl. X, 10.
 (32) Carthage, Mus. Lavigerie, from Kasrin, Terra-cotta Slab, IV-V Century, *Mus. de l'Algérie*, III, p. 9, pl. II-4.
 (33) Catania, Mus. Recupero, Glass, IV-V Century, G. III, pl. 171-2.
 (34) Civit  Castellana, Sarcophagus, IV Century, G. V, pl. 319-3.
 (35) Clermont, Sarcophagus (frag.), IV-V Century, Le Blant: G., pl. XVII-3.
 (36) Florence, Gherardesca Coll., Glass, IV-V Century, G. III, pl. 169-4.
 (37) Fordongianus (Sardinia), from, Lamp, IV Century, *Scavi*, 1903, p. 487, fig. 13.
 (38) Gerona, Cath., Sarcophagus, IV-V Century, G. V, pl. 374-3.
 (39) Gotha, Mus., Gem, "Early Christian," Furtw ngler, II, p. 246, 55.
 (40) Grosseto, Mus., Glass (frag.), IV Century, *B. Arch. Crist.*, 1882, pl. VIII.
 (41) Lausanne, Mus., Lamp, V Century, *R. Arch.*, 1875, p. 3.
 (42) London, British Mus., from Cologne, Glass Dish, III-V Century, Kisa, III, p. 893.
 (43) Lucq-de-B arn, Sarcophagus, IV-V Century, Le Blant: G., pl. XXVII, 1.
 (44) Madrid, Ayuntamiento, Sarcophagus, IV-V Century, G. V, pl. 376-3.
 (45) Mas-d'Aire (Landes), Sarcophagus, IV-V Century, G. V, pl. 301-3.
 (46) Mende, Sarcophagus, IV-V Century, Le Blant: G., p. 76, No. 93.
 (47) Narbonne, Mus., Sarcophagus (frag.), V Century, G. V, pl. 396-7.
 (48) Narbonne, Mus., Sarcophagus (frag.), V Century, G. V, Appendix, No. 19.
 (49) Paris, Basilewsky Coll. from Podgoritsa, Albania, Glass, IV Century, *B. Arch. Crist.*, 1877, pl. V-VI.
 (50) Paris, Bibl. Nat. Ms. Peiresc, Sarcophagus, V Century, G. V, Appendix, No. 2.
 (51) Pisa, Camposanto, Sarcophagus, IV-V Century, G. V, pl. 364-3.
 (52) Rome, from Esquiline, Glass (frag.), V Century, *B. Arch. Crist.*, 1884-85, p. 92.
 (53) Rome, from Catacombs, Carved Nut, IV? Century, Cabrol, *s.v.* Abraham, col. 116.
 (54) Rome, Lead Cup Base, III? Century, *B. Arch. Crist.*, 1879, p. 133 and pl. XI, 4.
 (55) Rome, from, Bronze Ring, IV? Century, G. VI, pl. 478-23.

- (56) Rome, Grotte Vaticane, Sarcophagus of Junius Bassus, IV Century, G. V, pl. 322-2.
- (57) Rome, Lateran, Sarcophagus, IV Century, G. V, pl. 312-1.
- (58) Rome, Lateran, Sarcophagus, IV Century, G. V, pl. 318-1.
- (59) Rome, Lateran, Sarcophagus, IV Century, G. V, pl. 358-1.
- (60) Rome, Lateran, Sarcophagus, IV Century, G. V, pl. 358-3.
- (61) Rome, Lateran, Sarcophagus, IV Century, G. V, pl. 359-1.
- (62) Rome, Lateran, Sarcophagus, IV Century, G. V, pl. 364-2.
- (63) Rome, Lateran, Sarcophagus, IV Century, G. V, pl. 367-1.
- (64) Rome, Lateran, Sarcophagus, IV Century, G. V, pl. 367-2.
- (65) Rome, Lateran, Sarcophagus, IV Century, G. V, pl. 367-3.
- (66) Rome, Lateran, Sarcophagus, IV Century, G. V, pl. 376-4.
- (67) Rome, Lateran, Sarcophagus, IV Century, G. V, pl. 384-3.
- (68) Rome, Lateran, Sarcophagus, IV Century, G. V, pl. 402-5.
- (69) Rome, from S. Lorenzo, Sarcophagus, IV Century, G. V, pl. 360-1.
- (70) Rome, Sarcophagus, IV-V Century, *B. Arch. Crist.*, 1883, p. 87.
- (71) Rome, S. Sotere, Stamp, IV Century, De Rossi: III, p. 346.
- (72) Rome, Vatican Mus., Lamp, IV? Century, G. VI, pl. 475-2.
- (73) Rome, ?, Bronze Medal, IV-V Century, G. VI, pl. 480-12.
- (74) Rome, Bibl. Vat., Glass, IV Century, G. III, pl. 172-8.
- (75) Rome, from Vatican, Sarcophagus, IV Century, G. V, pl. 377-1.
- (76) Rome, Via Salaria, Mural Drawings, IV? Century, *B. Arch. Crist.*, 1865, p. 3.
- (77) Rome, Vigna Baseggio, Sarcophagus, IV Century, G. V, pl. 310-1.
- (78) Rome, Villa Borghese, Sarcophagus, IV Century, Gr., p. 75, No. 82.
- (79) S. Canziano, Silver Spoon, IV Century, G. VI, pl. 462-6.
- (80) St. Maximin, Church Crypt, Slab, V Century, Le Blant: G., pl. LVIII.
- (81) St. Maximin, Sarcophagus, V Century, G. V, pl. 334-3.
- (82) St. Maximin, Sarcophagus, V Century, G. V, pl. 352-2.
- (83) St. Michel du Touch (formerly at), Sarcophagus, VI Century, Le Blant: G., p. 127, pl. XLII.
- (84) Strassburg, from, Gold Glass, IV? Century, Kraus: p. 482, fig. 359.
- (85) Syracuse, from Catacombs, Sarcophagus, IV-V Century, G. V, pl. 365-1.
- (86) Toledo, S. Domingo, Sarcophagus, IV-V Century, G. V, pl. 369-4.
- (87) Toulouse, Mus., Sarcophagus, IV-V Century, G. V, pl. 312-3.
- (88) Trèves, found at, Glass, V Century, *B. Arch. Crist.*, 1873, p. 141.
- (89) ———, Lamp, V Century, Abela, *Malta Illustrata*, X, lib. I, 5.
- (90) ———, Carved Gem, ? Century, G. VI, pl. 492-7.
- (91) Arles, Mus. (Isaac not represented), Sarcophagus, V Century, G. V, pl. 312-2.

Fragments

- (92) Ravenna, Mus. Naz., Sarcophagus, IV-V Century, Dütschke, *Rav. Studien*, p. 44, fig. 22.
- (93) Rome, Lateran Mus., Sarcophagus, IV Century, G. V, pl. 400-4.
- (94) Rome, Lateran Mus., Sarcophagus, IV Century, M., pl. XX-5.
- (95) Rome, Lateran Mus., Sarcophagus, IV Century, M., pl. VIII, 8.
- (96) Rome, Oratorio di S. Sisto, Sarcophagus, IV Century, Gr., p. 102, No. 176.

(97) Rome, Cim. di S. Lorenzo, Sarcophagus, IV Century, Gr., p. 99, No. 159.

(98) Rome, Cim. di S. Lorenzo, Sarcophagus, IV Century, Gr., p. 99, No. 161.

The Asiatic-Hellenistic Type

(99) Aix, Mus., Sarcophagus, IV Century (2 half), G. V, pl. 379-2.

(100) Ancona, Cath., Sarcophagus, IV Century (end), G. V, pl. 326-2.

(101) Arles, Mus., Sarcophagus, IV-V Century, G. V, pl. 366-2.

(102) Arles, formerly at, IV-V Century, Le Blant: A, p. 62, No. LX.

(103) Madrid, Ayuntamiento, Sarcophagus, IV Century (3 quarter), G. V, pl. 341-3.

(104) Marseille, Mus., Sarcophagus, V Century, Le Blant: G. p. 49, No. 64.

(105) Milan, S. Ambrogio, Sarcophagus, IV Century (Fig. 2), G. V, pl. 328-3.

(106) Paris, Louvre, Sarcophagus, IV-V Century, G. V, pl. 324-3.

(107) Rome, Cim. di Callisto, Sarcophagus (frag.), IV Century, G. V, pl. 396-8.

(108) Rome, Grotte Vaticane, Sarcophagus, IV Century, G. V, pl. 327-4.

(109) Rome, Lateran Mus., Sarcophagus, IV Century (2 half), G. V, pl. 320-1.

(110) Rome, Lateran Mus., Sarcophagus, IV Century (2 quarter), G. V, pl. 323-4.

(111) Rome, Piazza del Paradiso, 68, Sarcophagus, IV Century, Gr., p. 94, No. 146.

The Alexandrian-Coptic Type

(112) El Bagawat, Fresco, IV Century (Fig. 3), Bock: p. 27, pl. XIII and XIV.

(113) El Bagawat, Fresco, IV Century, Bock: p. 23.

(114) Berlin, Mus., Ivory Pyx, IV Century (Fig. 7), Vöge: pl. I, 1.

(115) Berlin, Mus., Bone fragment, IV Century, Wulff: I, no. 428.

(116) Bologna, Mus., Ivory Pyx, V Century (Fig. 6), Stuhlfauth: p. 30, fig. 3.

(117) Rome, Terme, Ivory Pyx, V-VI Century, Venturi: I, p. 534, fig. 4.

The Palestinian-Coptic Type

(118) Etschmiadzin, Miniature, VI Century (Fig. 8), Strzygowski: B. I., pl. IV.

(119) Rome, Mus. des Deutschen Camposanto, Lamp, V Century, *Röm. Quart.*, 1904, p. 21.

The Early Byzantine Type

(120) Paris, Amulet (in dealer's hands), *Byz. Z.* 1893, p. 188.

(121) Ravenna, S. Vitale, Mosaic, VI Century (Fig. 9), G. IV, pl. 261-2.

(122) Rome, Bibl. Vat. (Octateuch), Miniature, XII Century, *Byz. Archiv*, II.

(123) Rome, Bibl. Vat., Miniature of Codex of Cosmas Indicopleustes, VII-VIII Century, G. III, pl. 142-1.

ALISON MOORE SMITH

PRINCETON, N. J.

HERACLES AND THE OLD MAN OF THE SEA

IN 1918, the University Museum in Philadelphia acquired by purchase a very interesting and important Attic black-figured scyphus, the provenance of which is unknown. Its importance lies in the fact that it is one of only three black-figured vases to portray the scene, usually interpreted as the combat between Heracles and Nereus,—an interpretation which, in my opinion, is open to question, for reasons which I hope to develop, in the course of this paper.

The scene is divided into two parts, each part taking up one side of the vase. One side A. (Fig. 1) Heracles, at the left, ad-



FIGURE 1.—SCYPHUS IN PHILADELPHIA: SIDE A.

vances to right, and seizes his adversary by the neck with his left hand. Behind him, under the handle of the vase, are his club and quiver. In his right hand is an axe. His opponent is represented as an old man, who shrinks and cowers under the hero's grasp, and seeks to escape to the right. He is bearded, and dressed in a chlamys, and has a club in his left hand, which he is

handing to a woman, who is also fleeing to the right. As is usual in the black-figured technique, her flesh is rendered in white overcolor, and she wears a long chiton and himation. To her right, another woman, similarly attired, goes off, looking back, and holding up her hands in protest. Under the handle that comes at this point is a ram. In the field is conventional foliage.

On the other side of the vase (Fig. 2) are the spectators who are watching the struggle. At the right is Athena, looking to the right. In front of her is a tree, from which springs conventional foliage. Behind her is Iolaus, carrying a bow in his left hand, and



FIGURE 2.—SCYPHUS IN PHILADELPHIA: SIDE B.

a club in his right; while at the left is Hermes, walking to the right, but looking back, and identified by his winged hat and shoes. In the field are meaningless inscriptions.

In seeking for an interpretation for this vase, we at once think of the struggle between Heracles and Nereus, which is alleged to have taken place while the hero was seeking the road to the golden apples of the Hesperides. Heracles wrestles with him, and, though the god seeks to elude him by changing his shape frequently, the hero holds on to him, and finally secures the information that he seeks. The two women would then be two of the Nereids.

My purpose in bringing this vase to the attention of scholars is to try to show that the figure is not that of Nereus at all, but is the

same figure that occurs in the majority of the Attic black-figured vases that show Heracles in combat with a marine divinity, namely, the fish-tailed "Triton," and that both are representations of "The Old Man of the Sea" (ἄλιος γέρων), who is the original of the myth. His identification with Nereus comes relatively late in Greek literature, and the evidence of the vases and other works of art shows it to be incorrect.

The only other vases of the black-figured technique to show this scene in the same way as the scyphus in Philadelphia, that are known to me, are an amphora in the British Museum,¹ and a hydria in the Bibliothèque Nationale in Paris.² Nor is this exploit much more frequent in the red-figured technique. Three examples of the struggle, portrayed in this way, are known to me, as follows:

Hydria, British Museum E162. Unpublished, but gives its name to Mr. J. D. Beazley's "Painter of the Nereus Hydria."³

Column-crater, Bologna, *Necr. Fels.* p. 74, No. 196, and fig. 45.

Vase in the form of a double disk; Athens, Collignon-Couve 1202.⁴

Besides these three vases, two others in the Louvre should be included. One, a cylix, No. G155, in fragmentary condition, is usually attributed to Brygos.⁵ Heracles, in this picture, has seized the trident of the sea-god, and threatens to destroy everything in sight if he does not reveal his secret. The god, at the right, protests in vain. The second, a "Nolan" amphora, No. G210, represents Heracles, axe in hand, attacking a house, identified by Pottier⁶ as that of Nereus, though that of Syleus is also suggested by him.⁷

¹ *Catalogue*, p. 147, No. B225. Unpublished. The following abbreviations will be used, beside the ordinary ones; A. V., Gerhard, *Auserlesene Vasenbilder*; V. A., Beazley, *Attic Red-figured Vases in American Museums*; W. V., *Wiener Vorlegeblätter*; *Necr. Fels.*, *Catalogo dei Vasi . . . delle Necropoli Felisnee*, by Pellegrini, published in 1912.

² *Catalogue* (De Ridder) pp. 166-68, No. 255. Published, A. V. 112. Gerhard (A. V., text, vol. II, p. 98, note 27) also speaks of an "archaic" cylix that was in the Canino collection at the time that he wrote, that also seems to show this scene. This may be black-figured, as he does not give its style.

³ V. A., p. 61. Hoppin, *Handbook of Red-figured Vases*, Vol. II, p. 215.

⁴ Published, Benndorf, *Gr. Sicil. Vasenb.* pl. XXXII, 4.

⁵ Published by Klügmann, *Ann. dell' Inst.* 1878, pl. E. For a full bibliography, see Hoppin, *op. cit.* Vol. I, p. 137, No. 85.

⁶ *Catalogue des Vases Antiques de Terre Cuite*, Vol. III, p. 1025. The vase is unpublished. Pottier sees in this vase a "souvenir de quelque drame satyrique."

⁷ Gerhard (A. V., text, Vol. II, p. 98, note 27) speaks of a "Nolan" amphora at that time in the Canino collection, which he claims to be a Heracles and Nereus vase.

On the other hand, the combat between Heracles and the fish-tailed monster, generally called Triton, and sometimes so inscribed on the vases, is very common indeed as a design in the black-figured period. Only one red-figured vase, however, a cylix apparently of an early style, now lost,¹ is known, which shows Heracles and Triton; though reference should here be made to the famous stamnos in the British Museum, No. E437, signed by Pamphaeus as potter, where the combat of Heracles and Achelous is portrayed in a manner distinctly recalling the "Triton" vases.²

I had reached this point in studying this subject, in connection with the scyphus in Philadelphia, when duties of a sterner nature



FIGURE 3.—RELIEF FROM ASSOSS IN LOUVRE.

took me away from that city for about a year and a half, and archaeology became temporarily a side-issue, and of secondary importance. During my absence, the scyphus was very ably described and published by Miss Eleanor F. Rambo, who is correct in assigning it to the end of the black-figured period, at a time when the red-figured technique had already set in.³ Her publication was so thorough and competent that a republication seems almost an impertinence; but nevertheless I am taking this liberty, in order to bring together, coördinate, and unify, as far as it is possible, the representations of Heracles in combat with sea divinities. I also hope to show in a later paper, that the Philadelphia scyphus can be grouped with a large number of examples, all by the same hand.

¹ *Ann. dell' Inst.* 1882, pl. K. Formerly in Ciai and Mazetti collections, Chiusi. The publication is worthless to determine the style of painting.

² First published, Gerhard, *A.V.* 115. Full bibliography in Hoppin, *op. cit.* Vol. II, pp. 292-93, No. 10*. It should be remembered that Pamphaeus also signs black-figured vases, and, therefore, is much influenced by the early technique.

³ *Mus. J. X*, 1919, pp. 15-19, figs. 6 and 7.

The combats of Heracles with maritime deities are among the most puzzling subjects that appear on vases, because, while there are two sorts of representations, only one myth is known to literature, which is the one in connection with the apples of the Hesperides that I have quoted above.¹ Nowhere is Triton mentioned in connection with Heracles in the Greek literature that has come down to us; and yet, how is it that Heracles and Triton appear in combat so often, not only on the black-figured vases, but also on a relief from Assos (Fig. 3),² and, most impor-



FIGURE 4.—HERACLES AND TRITON: OLD TEMPLE OF ATHENA: ATHENS.

tant of all, as one of the pedimental sculptures on the "Old Temple" of Athena on the Acropolis at Athens (Fig. 4)?³

At first it would seem logical and sensible to identify "Triton" as one of the forms into which Nereus, according to Apollodorus, changed himself, and to maintain that the Triton vases and sculptures show, in reality, Nereus. This must, however, be ruled out, as in several instances Triton has his name inscribed over his head, while, in two vases, a black-figured amphora in the British Museum,⁴ and a black-figured hydria in the Louvre,⁵ a subsidiary

¹ See p. 175. Told by Apollodorus, *Bibl.* II, 5, 11, where Nereus is mentioned by name.

² In the Louvre; first published in *Mon. dell' Inst.* III, pl. 34. For other publications, see Brunn-Bruckmann, *Denkmäler*, pls. 411 and 412; Reinach, *Répertoire des Reliefs*, I, p. 3; Daremberg-Saglio, *Dict. des Antiq. Gr. et Rom.* fig. 3766; and Bacon, *Investigations at Assos*, pp. 145, 151, fig. 3, and 165.

³ Acropolis Museum Sculptures, No. 36. Waldmann, *Gr. Originale*, pl. 3, and elsewhere. The most recent publication is that of Heberdey, *Altattische Porosskulptur* (Vienna, 1919), No. II, p. 13 and pl. III.

⁴ *Catalogue*, p. 146, No. B223. Published, *ibid.* p. 21, fig. 29, also *J.H.S.* XXVI, 1906, p. 15, fig. 6, and Gardiner, *Greek Athletic Sports and Festivals* p. 445, fig. 160. P. Gardner, *Principles of Greek Art*, p. 241, fig. 80.

⁵ No. F298. Publ., *Album des Vases Antiques du Louvre*, Vol. II, pl. 84.

figure is inscribed with the name Nereus.¹ This makes it possible to identify as "Nereus" subsidiary figures on at least fifteen amphorae, fourteen hydriae, one cylix, two olpae, and two lecythi of the list of "Triton" vases that accompanies this paper.² We must, therefore, regretfully conclude that "Triton" and "Nereus" are two separate personalities in the minds of some of the vase-painters of the black-figured style. This is also, as was to be expected, true of the one red-figured "Triton" vase, where "Nereus" occurs on the opposite side from that on which the hero and "Triton" are painted. I reproduce at this point a photograph of a vase in New York, where both "Triton" and "Nereus" are shown (Fig. 5).³



FIGURE 5.—HYDRIA: METROPOLITAN MUSEUM: NEW YORK.

But still the question remains unsolved, namely, to what myth these vases can refer. Gerhard,⁴ with an eagerness for mythological interpretation characteristic of the period of scholarship in which he lived, is at some pains to evolve a solution, quoting a passage from Euripides⁵ to prove his point;

¹ Three vases where the name of Triton is inscribed are the British Museum amphora, and hydriae in Berlin (Furtwängler 1906) and the Fitzwilliam Museum, Cambridge (No. 54).

² In the list, these vases are indicated by an asterisk placed in front of them.

³ I am greatly indebted to Miss G. M. A. Richter for her kind permission to republish this vase, which had already been published in *B. Metr. Mus.* XI, 1916, p. 254, fig. 3, and *Handbook of the Classical Collection*, 1917, pp. 78, 79, fig. 47. Its accession number is 16.70.

⁴ *A.V.*, text, Vol. II, pp. 96 f.

⁵ *Herc. Fur.* 397 f.

but this solution, showing though it does, much scholarly knowledge of the literature, seems, nevertheless, far-fetched, and can apply almost equally well to the "Nereus" legend. Walters¹ recognizes the impasse, and says that the "Triton" myth is unknown to the literature we possess; Millingen² writing a hundred years ago, in publishing a small vase with the combat of Heracles and "Triton," speaks of it as the struggle between the hero and Nereus; and his example is followed by Professor Fox,³ the latest writer on the subject, who republishes a lecythus in Syracuse⁴ showing Heracles and "Triton" and speaks of the combat as that between Heracles and Nereus, "the Ancient of the Sea." The writers in Daremberg-Saglio⁵ frankly take the bit in their teeth, and, disregarding the evidence offered by the inscriptions on the vases, declare that in the Heracles cycle, Nereus and Triton are one and the same.⁶

It seems to me, however, that the solution lies in ignoring for the moment the names Nereus and Triton, and coming back to the idea of one original sea divinity, ἄλιος γέρων, "the Old Man of the Sea." This is, in some measure, the idea given by the writer in Daremberg-Saglio,⁷ who says that "before recognizing Poseidon, the maritime peoples of Greece honored under the name of Halios Geron a marine divinity, of whom Nereus, Proteus, Phorcys, Glaucus, and Triton are only particular and local forms." He shows that in the early literature Nereus, Proteus and Phorcys are referred to by the common term of ἄλιος γέρων.⁸ He admits that Triton is never called by this name in literature, but on the other hand in the character of Triton, as finally evolved, most

¹ *History of Ancient Pottery*, Vol. II, p. 101.

² *Ancient Unedited Monuments*, I, pl. XI, and text.

³ *Greek and Roman Mythology*, pp. 87, 88.

⁴ Originally published by P. Orsi, in *Mon. Ant.* XVII, p. 406, and pl. XXV. Orsi, it should be noted, calls it the contest between Heracles and ἄλιος γέρων.

⁵ s. vv. Hercules, Triton.

⁶ I regret that in this connection I have been unable to consult the dissertations of Escher, *Triton und seine Bekämpfung durch Herakles*, published in 1890, or of Kourouniotis, *Herakles mit Halios Geron und Triton*, published in 1893. These dissertations have not been in any library to which I have had access. I, therefore, acknowledge at once that much material collected by these two scholars has doubtless escaped my notice, and that I may have repeated independently some of their conclusions.

⁷ s. v. Triton, p. 483.

⁸ Nereus, for example, is called Halios Geron in Homer, *Il.* I, 538, XVIII, 141, XX, 107, XXIV, 562; *Odyssey*, XXIV, 58; Hes. *Theog.* 1003, and as late as Pindar, *Pyth.* IX, 167.

of the characteristics of the original Old Man of the Sea from whom Nereus and Proteus develop are preserved.

We will now discuss two works of art where the formula $\alpha\lambda\iota\omicron\varsigma \gamma\acute{\epsilon}\rho\omega\nu$ is employed. The first, a vase (Fig. 6) will not hold us long. It is an Attic black-figured oenochoe, found at Vulci, and now in Berlin, signed by Cholchos as maker ($+ΟΙΧΟΣ ΜΕΡΟΙΕΣΕΝ$).¹ The principal scene shows the combat of Heracles and Cyenus. Cyenus ($ΚΥΚΤΟΣ$) has been overcome, and lies on the ground. Over his body strides Heracles ($ΗΕΡΑΚΛΕΣ$), about to fight Ares ($[Α]ΡΕΣ$), who is rushing to avenge his son. Between them is Zeus, with his thunderbolt. This figure has been repainted. Behind Heracles comes Athena ($ΑΘΕΝΑΙΑ$).

At each end is a chariot, heading away from the combat. That to the right is drawn by Fear ($ΦΟΒΟΣ$), that to the left by Iolaus ($ΙΟΛΕΟΣ$). From the right Apollo ($[Α]ΠΟΛΛΩΝ$) comes running towards the combat,

¹ Furtwängler, No. 1732. Published, A.V., 122, 123, W.V. 1889, pl. I, 2. and Buschor, *Gr. Vasenm.* ed. 1913, p. 137, fig. 89.

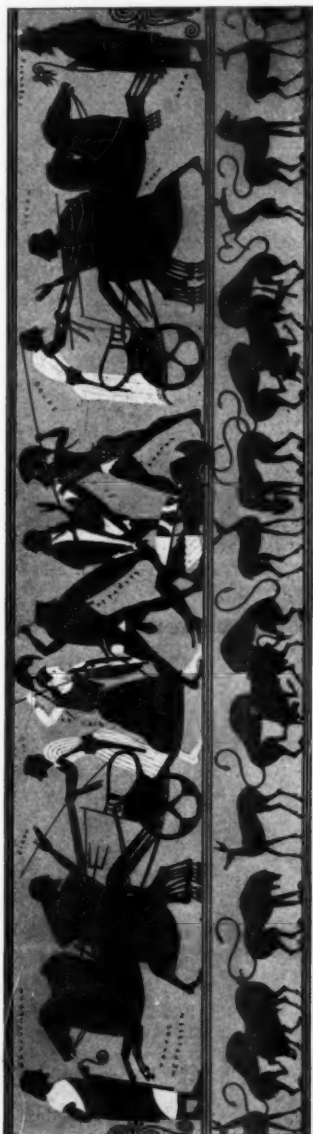


FIGURE 6.—OENOCHOE SIGNED BY CHOLCHOS: BERLIN.

while behind him stands Dionysus (ΔΙΟΝΥΣΟΣ). To balance Apollo on the left, Poseidon (ΠΟΣΕΙΔΩΝ), trident in hand, rushes to the support of Heracles. Behind him, corresponding to the figure of Dionysus at the right, stands a figure of a man, bearded, and draped in a himation. This figure is inscribed ΗΛΙΟΣ ΛΕΩΝ, ἄλιος γέρων.

It is clear in the case of this vase that the "Old Man of the Sea" is considered to be "Nereus," and can be thought of as none other than the god who is somewhat later known by that name. This is important, in view of the manner in which the vase is painted, which shows it to be relatively early in the Attic black-figured technique. It shows strong Corinthian and Chalcidian influence, particularly the latter. The frieze of animals below the principal design suggests Chalcis, and strongly resembles those found on the François vase. Furthermore, in the signature, the formula ΜΕΓΟΙΕΣΕΝ is also early, rarely appearing as a rule after Execias and Amasis, both of whom employ it, and never, except in one isolated instance, in the red-figured technique.¹ We are, therefore, justified in placing this vase in the middle of the sixth century B.C.

Almost contemporary with this specimen, and, if anything, somewhat antedating it, is our second work of art, a bronze plaque, found at Olympia (Fig. 7).² Here we have a representation of Heracles in combat with a fish-tailed monster, corresponding almost exactly to the "Triton" of the somewhat later Attic black-figured vases. Over the head of Heracles runs the retrograde inscription 'Ἡ'ΑΚ'ΑΙ, which Furtwängler interprets as 'H]ρακ[λ]ῆς. Around the lower right-hand corner runs the following inscription; ΝΟΒΛΜΟΙΛΛ'. This inscription, also retrograde, is read by Furtwängler as ἄλιος γέρων, and this reading is usually accepted.

The importance of this plaque is obvious. It shows at once that the original myth, at the time when the pedimental sculpture of the Old Temple of Athena on the Acropolis was set up,

¹ The only instance of this formula that I have been able to find in the red-figured technique is a signature of Pamphaeus (who, it must be remembered, is a "transitional" artist, signing both black-figured and red-figured vases) on a fragment of a stamnos in the British Museum, No. E457, fragment 1 (ΓΑΥΦΑΙΟΣΜΕΓ . . .). See Hoppin, *op. cit.* II, p. 294, No. 11*.

² Curtius and Adler, *Olympia*, Vol. IV, p. 102, No. 699 and pl. XXXIX (Furtwängler). *Ausgrabungen von Olympia*, IV, pl. XXV B, and p. 19.

was of a contest between Heracles and a nameless Old Man of the Sea. Later the fish-tailed monster came to be called Triton, and Heracles is still represented in combat with him. The subsidiary figure of Nereus is introduced, identified by the inscription on the British Museum amphora; and in the later black-figured vases, and the bulk of the red-figured, "Nereus," so called, takes the place of Triton. It is well to recall, in this connection, that on none of the "Heracles and Nereus" vases,

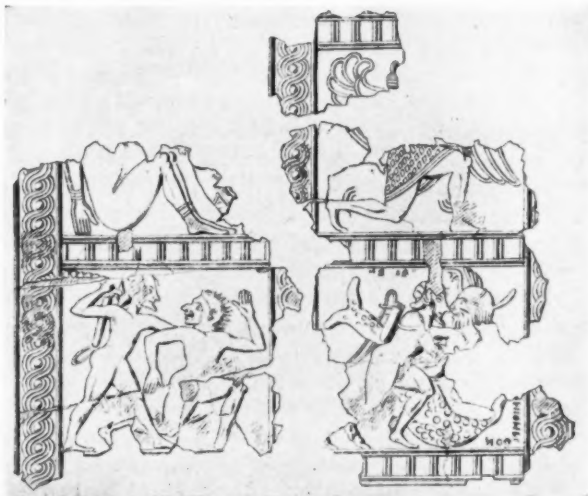


FIGURE 7.—BRONZE PLAQUE FROM OLYMPIA.

is the name of Nereus inscribed; so that he can be thought of, not as Nereus, but as Halios Geron in another form. Indeed, it is not till the late writer Apollodorus¹ that the name of Nereus definitely appears in connection with this myth as the adversary of Heracles. Therefore it seems better to go back to what was undoubtedly the original story, and discard the names Nereus and Triton altogether when referring to Heracles's combat, and call it the struggle between Heracles and ἄλιος γέρων.

It will then be asked, "How can you explain away the inscription Τρίτων² that sometimes appears over the head of the

¹ See p. 178, note 1.

² See p. 179, note 1.

figure of the Old Man of the Sea?" This certainly apparently offers an obstacle to the adoption of the theory, but it is not as serious as it would appear. The conception of Triton is very ancient, the name being mentioned very early in Greek literature.¹ This would show that for a time the fish-tailed Triton and the fish-tailed Halios Geron existed side by side, and could be easily confused, as the inscribed vases would suggest, by the Attic vase-painters. Furthermore in each case, the form of the god shows him to be of very early origin, the snaky fish-tail suggesting the snake-gods worshipped in primitive Greek religion.² Thus we can either make the statement that there are two of these divinities existing side by side, or that originally Triton and Halios Geron are one and the same, the former developing out of the latter more primitive deity. Later in the evolution of Greek mythology, the honors are divided, and Nereus, Proteus, and Phorcys share with Triton the attributes of Halios Geron. To the vase-painters of the black-figured technique, however, the combat of Heracles with the Old Man of the Sea, came, little by little, to mean Triton, as the inscribed vases show. At the time of Apollodorus it had shifted to mean Nereus, and, perhaps, we can see in the statement of the mythographer that the sea-god changed his form many times, an indirect reference to the various godheads that derive their origin from the same source; that he became first Nereus, then Triton, and so on. Those black-figured vases which, like the scyphus in Philadelphia, are usually thought of as representing the combat of Heracles and Nereus, are merely manifestations of ἄλιος γέρων in another form. When Nereus and Triton appear together on the same vase, it signifies either that Triton has inherited that part of the myth of the Old Man of the Sea which describes him as fighting with Heracles, and is really the Old Man of the Sea, *par excellence*, with whom Heracles wrestles; or else, as I have suggested above, there is a confusion among the vase-painters, between the two deities, owing to their similar form.

It would, therefore, seem probable that Apollodorus has erroneously, in this instance, taken Nereus to be Halios Geron, on the theory that he has inherited so many of the attributes of that primitive god; and has lost sight of the fact that Nereus is not the sole heir to the attributes of his predecessor in marine

¹ First by Hesiod, *Theog.* 930 f.

² See Jane Harrison, *Prolegomena to the Study of Greek Religion*, Ch. 1.

demonology, but that they are divided, and that, in this case, Triton, as is proved by the Olympia plaque, if not himself a direct survival of Halios Geron, retains many of his characteristics, and must be regarded as the legatee. However, it is far wiser and more in keeping with the evidence afforded by the works of art, to drop such later names as Nereus or Triton, in connection with Heracles, and retain the title Halios Geron, "The Old Man of the Sea."

A list of vases portraying the combat of Heracles with the fish-tailed Old Man of the Sea is herewith given, which is as complete as I could make it. Vases preceded by an asterisk have the supplementary figure of "Nereus" represented in the picture. Previous publications of the different vases will be given in footnotes, wherever they occur. It will at once appear from this list how popular a subject this was in the Attic black-figured technique.¹

AMPHORAE. ALL BLACK-FIGURED.

* before a vase means that "Nereus" appears in the picture with "Triton;"

** before a vase indicates that a figure called "Nereus" appears on Side B.

1. Munich, Jahn 161. B. Bacchic.
2. " " 391. B. Chariot scene.
3. " " 443. B. Horseman with dog, between two warriors.
4. " " 721. B. Woman and two warriors.²
5. " " 1261. B. Athena, Hermes, and Dionysus.
- * 6. " " 1271. B. Bacchic.
- ** 7. " " 1292. B. Nereus, seated, with seated woman.
8. Würzburg, Urlichs 90. B. Battle between two warriors.
- * 9. " " 109. B. Ajax and Teucros (?) between two old men.
10. " " 263. B. Heracles and the Nemean Lion.
- * 11. British Museum, B201. B. Apotheosis of Heracles.
- * 12. " " B223. B. Bacchic. (HEPAKΛEEΣ TPITON NEPEE[V]Σ.)³
- * 13. British Museum, B224. B. Warrior arming.

¹ This list was compiled from references to Heracles vases collected by me in 1913, supplemented by the lists given by Gerhard (*A.V.*, text, Vol. II, pp. 95-96, footnote 12), Petersen (*Ann. dell' Inst.* 1882, pp. 75-77), and Studniczka (*Ath. Mitt.* XI, 1886, pp. 61 f.). The article by Stephani (*C. R. Acad. St. Petersburg*, 1867, p. 22) was of no great value to me in listing these vases, as Stephani's list is repeated by Petersen.

² Published, Millingen, *Peintures Antiques de Vases Grecs*, pl. 32.

³ Published, *Catalogue*, p. 21, fig. 29. *J.H.S.* XXVI, 1906, p. 15, fig. 6. E. N. Gardiner, *Greek Athletic Sports*, p. 445, fig. 160. P. Gardner, *Principles of Greek Art*, p. 241, fig. 80.

* Since writing the above I have seen another amphora showing this subject,—Toronto, C 316. B. Groom with horse and maidens. This vase is in the style of Execias.

HYDRIAE. ALL BLACK-FIGURED.

44. Louvre F38. Signed by Timagoras.¹ On shoulder, assembly of gods. ΤΙΜΑΛΟΡΑ ΕΡΟΙΕΣΕ . ΑΝΔΟΚΙΔΕΣ ΚΑΛΟΣ ΔΟΚΕΙ ΤΙΜΑΛΟΡΑΙ.
45. Louvre F51.² On either side, youths. On shoulder, battle scene.
46. " F52.
47. " F286.³ On shoulder, chariot scene. Meaningless inscription.
- *48. " F298.⁴ ΝΙΚΕΣΙΓΟΣ ΚΑΛΟΣ. ΗΕΡΑΚΛΕΣ, ΝΕΡΕΥΣ, ΑΝΦΙΤΡΙΤΕ. On shoulder, chariot scene.
- *49. New York 06.1021.48.⁵ On shoulder, Achilles pursuing Troilos.
- *50. " " 12.198.3. On shoulder, Theseus and Antiope. ΑΝΤΙΟΓΕΙΑ ΘΕΣΕΥΣ ΗΕΡΑΚΛΕΣ.
- *51. " " 16.70.⁶ On shoulder, Bacchic.
- *52. Petrograd, Stephani 25. On shoulder, Heracles and the Nemean Lion.
- *53. " " 142. On shoulder, battle scene. ΟΝΕΤΟΡΙΔΕΣ ΚΑΛΟΣ (probably by Execias).
- *54. British Museum B311. On shoulder, animals.
- *55. " " B312.⁷ On shoulder, Judgment of Paris.
- *56. Munich, Jahn 134. On shoulder, Heracles and the Nemean Lion.
57. Munich, Jahn 432. The exploit is on the shoulder; below, chariot scene.
58. Boston 99.522. Forman Sale Cat., 284, formerly in Campanari and Rogers collections. On shoulder; grooms and horses.
- *59. Boston 01.8058. On shoulder, battle scene. Four καλός-names. ΕΥΓΑΡ . . . ΤΟΣ ΚΑΛΟΣ, ΜΝΕΣΙΛΑ ΚΑΛΕ, ΑΜ . . ΘΟΕ ΚΑΛΕ + ΟΙΡΟΣ ΚΑΛΟΣ. Forman Sale Cat., 283.
60. Berlin 1906.⁸ On shoulder, Bacchic. ΗΕΡΑΚΛΕΕ (K modern) ΖΟΝΟΤΙQT (T modern) ΚΤΕΣΙΛΕΟΣ ΚΑΛΟΣ.
61. Athens, Graef, *Akropolis-Vasen* 738.⁹ Fragmentary.
62. Fitzwilliam Museum 54.¹⁰ On shoulder, warrior attacked by chariots. Η[Ε]ΡΑΚΛΕΣ, ΛΙΟΤΙQT, ΟΛΤΙΟ . . (Πορτιθόν) ΑΡΘΟ+ΙΛ . . Χ (Καλλιχώρα?)
63. Conservatori Palace, Rome, No. 158.¹¹ The design is on the shoulder.
64. Art Institute, Chicago. Much restored. Modern inscription ΚΑΛΟΣ ΗΑΘΙΣ.

¹ Published, W.V., 1889, pl. V, No. 3.

² Published, *Album des Vases Antiques du Louvre*, Vol. II, pl. 67.

³ Published, *ibid.* pl. 82.

⁴ Published, *ibid.* pl. 84.

⁵ Published, Canessa Sale Cat., pl. 15, No. 46, and pl. II.

⁶ Published, *B. Metr. Mus.* XI, 1916, p. 254, fig. 3; *Handbook Classical Collection*, 1917, pp. 78, 79, and fig. 47; and Fig. 5 of this paper.

⁷ Shoulder design published in British Museum, *Catalogue of Black-figured Vases*, p. 26, fig. 34.

⁸ Published, Gerhard, *Etr. Camp. Vasenb.* pls. XV-XVI, 5 and 6.

⁹ Published, Graef, pl. 47.

¹⁰ Published, *Catalogue*, p. 29, and pl. XVI.

¹¹ Described from notes taken in the museum. Made no entry of main design.

- *65. Formerly in Fontana Coll. Trieste, No. 17.¹ Signed by Tychios. The design is on the shoulder; below, Athena in quadriga, with Apollo and Hermes. On lip, ΤΥ+ΙΟΣ ΕΓΟΙΕΣΕ . . . V. On body, ΑΘΕΝΑΙΑ, ΑΡΟΛΟΝΟΣ, ΣΟΜΡΕΗ.
- *66. Formerly in Durand Coll. Cabinet Durand, 302.² On shoulder, Apotheosis of Heracles.
67. Paravey Sale Catalogue 13. On shoulder, battle-scene. (Beugnot Cat., 31.)
- *68. De Witte, *Cab. Etrusque*, 85. On shoulder, combat. (A.V., *loc. cit.*, p. 95, No. b.)
69. Formerly in the collection of Lucien Bonaparte. On shoulder, Bacchic. (A.V., *loc. cit.*, No. f.)
- *70. "Campanari'sche Hydria." (A.V., *loc. cit.*, No. h.) The design is on the shoulder; below, quadriga.³
71. Hydria formerly in the Pizzuti collection.⁴
- *72. Canessa Sale Cat., 1903, No. 51.⁵

Total, twenty-nine hydriae.

LECYTHI. ALL BLACK-FIGURED.

73. Athens, Coll.-Couve 726.
74. " " " 888.
75. Museum of Syracuse; found at Gela.⁶
76. " " " " " Megara Hyblaea.
77. Munich, Jahn 1134.
- *78. Vienna, Sacken und Kenner, p. 196, No. 77.
- *79. Karlsruhe 184. ΟΓ . . . ΛΟΣ (δ παῖς καλός;)

Total, seven lecythi.

CYLICES. BLACK-FIGURED.

80. Museum of Corneto, "Kleinmeister" type. Design in interior.⁷ +ΑΙΠΕ ΚΑΙ ΓΙΕΙ ΕΥ (twice).
- *81. Museum of Taranto, "Kleinmeister" type. Design on both sides of exterior.
82. Cook Collection, Richmond.⁸ Design in interior.
83. Athens, Graef, *Akropolis-Vasen*, 1554.⁹

¹ Published, *W.V.* 1889, pl. VI, 1.

² Published, Gerhard, *A.V.* 111.

³ It is quite likely that this vase is the same one as the vase in the Conservatori Palace. It is not the vase mentioned in *A.Z.* 1856, p. 248, as Petersen thinks. That vase is either the hydria in Cambridge, or the one in Boston, No. 99.522.

⁴ Petersen, *Ann. dell' Inst.*, 1882, p. 77, No. N.

⁵ Published in Sale Catalogue, pl. II, No. 4.

⁶ Published, *Mon. Ant.* XVII, pl. XXV.

⁷ Published, *Mon. dell' Inst.*, XI, pl. 41.

⁸ Published, Burlington Fine Arts Club Catalogue, 1904, No. 14, pls.

RED-FIGURED.

- *84. Cylix, now lost, formerly in Ciai and Mazetti Collections, Chiusi.¹ This is the only known red-figured vase to show the contest in this manner. Total, four black-figured cylices and one red-figured cylix.

SCYPHI. ALL BLACK-FIGURED.

85. Athens, Coll.-Couve 816. Design repeated on side B.
 86. " , Graef, *Akropolis-Vasen*, 1322.² Fragment.
 87. Karlsruhe 198.
 88. Museum of Taranto. Design repeated on side B.
 Total, four scyphi.

OENOCHOAE. ALL BLACK-FIGURED.

89. British Museum B493.
 90. " " B494.
 Total, two oenochoae.

OLPAE. ALL BLACK-FIGURED.

- *91. Petrograd, Stephani 38.
 *92. Conservatori Palace, Rome.
 Total, two olpae.

CELEBE. BLACK-FIGURED.

93. Athens, Graef, *Akropolis-Vasen* 675. Fragmentary.³
 Total, one celebe.

LOST VASES OF UNKNOWN SHAPE. ALL BLACK-FIGURED.

94. Small vase, published by Millingen.⁴ Shape unknown.
 95. Dubois, *Notice d'une Collection*, No. 81. Petersen, *Ann. dell' Inst.*, 1882, No. F.

DOUBTFUL VASES.

There remain a number of vases which have been assigned to this subject by various hands; and which, for various reasons must, in my opinion, be rejected. Some of these would, if accepted, be very important and helpful in the confirmation of the theory which it has been the object of this paper to prove.

First of these doubtful vases and most important is a fragmentary pinax found in a bee-hive tomb excavated by the British at

¹ Published, *Ann. dell' Inst.*, 1882, pl. K.

² Published, Graef, pl. 72.

³ Published, *ibid.* pl. 45.

⁴ Published, Millingen, *Ancient Unedited Monuments*, Vol. I, pl. XI.

Praesos in Crete.¹ Hopkinson, in publishing it, assigns it without any question to this subject, and is right in using the term ἄλιος γέρων, rather than Triton in discussing the myth. Here we have a youth grappling a large fish-tailed creature, of which only the tail and part of the back are preserved. There is nothing to prove that the upper parts of the monster were human. Therefore, I prefer the theory advanced by Professor Elderkin of Princeton University² that this vase-painting does not represent the combat of Heracles and ἄλιος γέρων, but rather suggests Theseus borne up to the surface from the depths of the sea by a large fish, representing the continuation of the story told by Bacchylides,³ and illustrated by the Theseus-Amphitrite cylix by Euphronius in the Louvre.⁴ Furthermore, as Professor Elderkin points out, the painting gives no indication of any struggle; the man grasps the back of the monster, not with any attempt to wrestle with him, but simply to hang on to him. Professor Elderkin also declares that enough of the monster is preserved to show that the upper parts could not have been human, which, if true, is sufficient to clinch the matter, without trying to seek any other interpretation. If accepted, this would be the earliest vase-painting to show the subject, as it antedates by at least half a century the black-figured vases of this list. Moreover it probably antedates the plaque from Olympia also.

There are several other works of art which have been assigned to this subject without sufficient grounds, as it seems to me, of which I shall merely mention the vases. This is a class of objects where Triton alone is shown, without Heracles. The first of these is an amphora in the Louvre, No. F397, in describing which, Pottier⁵ says, "*L'épisode de Triton, d'où le héros principal, Hercule, a disparu par une singulière omission du peintre, qui a pourtant conservé au vaincu son attitude désespérée.*" This seems to me far-fetched. Triton appears alone on many vase-paintings, and, if we are to attribute this one to the Heracles myth, there is no reason why all of the vases where Triton appears

¹ Published, *B.S.A.* X, 1904-05, pp. 148-53, and pl. III; *Ath. Mitt.* 1906, p. 391, fig. 2, and elsewhere.

² In *A.J.A.* XIV, 1910, pp. 190-92.

³ Bacchylides, XVI, 97f.

⁴ Furtwängler-Reichhold, *Gr. Vasenn.* pl. V. For full bibliography, see Hoppin, *op. cit.* I, p. 398-9, No. 11.*

⁵ *Catalogue*, Vol. III, p. 813.

alone should not be so attributed; and therein, as it would seem to me, madness lies. For similar reasons, a fragmentary cylix from the Acropolis at Athens (Graef, *Akropolis-Vasen*, No. 1575)¹ is suggested as a possible Heracles-Halios Geron vase. There is, however, more reason for this, in that the cylix is in fragments, and while Triton appears alone, there is no reason to suppose that Heracles may not have figured on a missing part. Another vase, a red-figured cylix in the British Museum, No. E109² is sometimes referred to this subject, and should certainly be rejected, as there is nothing whatever to make us suppose that the vase-painter had Heracles in mind at all.

Finally there remains a class of vases that may possibly represent this subject, but which should probably also be rejected. Two of these are black-figured and one is red-figured. The first is a fragment of a large vase, in the Museum of Fine Arts in Boston, from Naucratis.³ This is assigned by Mr. Robinson to Heracles and Triton, without, in my opinion, sufficient grounds. The second is a small black-figured lecythus in the Historical Museum in Berne, which I saw and took notes on in the autumn of 1914. On this vase the drawing is so bad that it is hard to know just what the designer intended to portray; but Heracles certainly figures, and it would seem that it must have been intended for the struggle with Halios Geron.

The red-figured specimen is a fragment of a cover for a vase, in the British Museum, No. E812, fragment 4.⁴ Heracles is identified by the tail and paws of the lion's skin; his legs are bent, as if struggling or wrestling, and the writer of the catalogue suggests that "Triton" is the adversary. But this seems hardly probable, in view of the fact that no part of the fish-tailed monster appears in the fragment. In the vases that show this subject, Heracles and the Old Man of the Sea are wrestling in such a way that any fragment that showed any part of the hero would necessarily show some part of his adversary. Furthermore, so many of the exploits and labors of Heracles take the form of wrestling and struggling, that this fragment might have portrayed any of a

¹ Published, Graef, pl. 82.

² Published, *Él. Cér.*, III, 33. Wrongly grouped by Petersen in his list of vases (*Ann. dell' Inst.* 1882, No. L).

³ *Catalogue*, Robinson, No. N 175.

⁴ *Catalogue of Red-figured Vases*, p. 384.

great many of his deeds, such as the Cretan Bull, the Erymanthian Boar, Achelous, the Hydra, and others.

This paper, then, is the result of my study of the scyphus in Philadelphia. I have sought to show that the vases showing Heracles in combat with "Triton" and the vases with the hero attacking "Nereus" really are portraying the same exploit, the two forms of adversary to Heracles being two distinct manifestations of Halios Geron; "Nereus" being Halios Geron as he appears on the oenochoe of Cholchos, and "Triton" being Halios Geron as he is represented on the Olympia plaque. There is, therefore, no particular difficulty regarding this class of vases, when the true interpretation is reached.

STEPHEN BLEECKER LUCE.

BOSTON, MASS.

ARCHAEOLOGICAL DISCUSSIONS¹

SUMMARIES OF ORIGINAL ARTICLES CHIEFLY IN CURRENT PUBLICATIONS

SIDNEY N. DEANE, *Editor*
Smith College, Northampton, Mass.

GENERAL AND MISCELLANEOUS

The Geographical Method in Prehistorical Study.—P. DEFFONTAINES urges the necessity of applying geography to prehistoric study. Differences of place, surroundings, climate, flora and fauna, and the like are quite as important as differences of date, and without careful study of geography the two are likely to be confused. (*R. Arch.*, fifth series, XIV, 1921, pp. 171-175.)

Phoenicians, Aegeans, and Hellenes.—The races which shared in the primitive Mediterranean culture are the subject of a recent discussion by RAYMOND WEILL (*Syria*, II, 1921, pp. 120-144). The "Phoenicians" of this period are not the Semitic people of the Syrian coast who bore this name in classical times; they are the Aegeo-Cretan people who dominated the islands and coasts of the Eastern Mediterranean, including that Syrian littoral which afterwards by a gradual limitation of geographical nomenclature, came to be known as Phoenicia. In Egypt the name *Kefto* underwent a precisely similar change of meaning. The Aegean civilization established on the Syrian coast was not penetrative; it did not change the originally Semitic racial and linguistic characteristics of the Canaanitish population. But the Poulousati mentioned in Egyptian documents, the Philistines of the Bible, were an Aegean people. An examination of the names of the "People of the Sea" mentioned in inscriptions of Rameses II and his successors shows that most of the nations mentioned belong to Asia Minor. The Akaiaouasha seem also to have been an Asiatic people, probably Carians. It was these people whose occupation of Greece is reflected in such myths of Oriental immigration as those associated with Inachus, Danaus, and Pelops. These Asiatic Achaeans were supplanted by Hellenic invaders who took over the civilization and traditions, and even the name, it would seem, of the primitive Carian Achaeans.

Landscape in Ancient Painting.—R. PAGENSTECHER (*Jb. Kl. Alt.* XLVII-XLVIII, 1921, pp. 271-288) outlines the history of landscape painting in Greece and Rome. In view of the considerable appreciation of nature found

¹ The departments of Archaeological News and Discussions and of Bibliography of Archaeological Books are conducted by Professor DEANE, Editor-in-charge, assisted by Professor SAMUEL E. BASSETT, Professor C. N. BROWN, Miss MARY H. BUCKINGHAM, Dr. T. A. BUENGER, Professor ELMER T. MERRILL, Professor LEWIS B. PATON, Professor JOHN C. ROLFE, Dr. JOHN SHAPLEY, Professor A. L. WHEELER and the Editors, especially Professor BATES.

No attempt is made to include in this number of the JOURNAL material published after December 31, 1921.

For an explanation of the abbreviations, see pp. 129-130.

in the Greek poets, even in the tragic drama, the neglect of man's natural environment in Greek painting is noteworthy. Due in part to the recognized humanistic tendency of the Greek mind, and to the anthropomorphic reaction of the Greek imagination to the forces of nature, this limitation is also inherent in the function of the monumental arts as practised in the classical period. The subjects of decoration normally chosen for pediment groups and for great mural paintings require almost exclusively the portrayal of human figures. Pre-Hellenic art is contrasted with Greek in the extent to which interest in human subjects is subordinated to that of the world in which they live: its animal, floral, and marine life. In the Geometric period the characteristic restriction of early Greek painting to human subjects is already manifest; and even the landscape elements which, under the influence of oriental models, appear so often in Ionian art, are usually rejected by Attic painters, whose concentrated humanism is in its severest form coincident with the period of the Persian wars. The invention of the red-figure technique in vase painting favored the development of this strictly monumental style, excluding landscape accessories. A similar tendency is reflected in the mural painting of Polygnotus. His adoption of the representation of irregularities of ground at different levels is not due to interest in landscape: it is the solution of a problem of composition, the covering of wide and high wall spaces with human figures. More progress in the direction of landscape painting was made in theatre backgrounds, but Polygnotus did not avail himself of this. With the Peloponnesian War the dominance of Athens in the arts passed, and in Sicily and Southern Italy there are evidences of a development of painting which gave more attention to landscape. The scene on the Ficoroni cista is a copy from some painting of this style, made perhaps at Tarentum. The extension of Greek acquaintance with the world through the conquests of Alexander, and the sight of oriental parks and villas planned for the enjoyment of natural surroundings turned the attention of the Hellenistic Greeks to landscape as a motive in art. The growth of great cities also had its reaction in a sentimental enthusiasm for nature which found its literary expression in the idyls of Theocritus. Monumental painting was in a stage of decline; the small panel pictures demanded for the decoration of private houses lent themselves to the expression of the new interest in landscape. In the development of this motive Alexandria played a leading part. This accounts for the Egyptian subjects so often found in Pompeian wall painting. The later styles of Pompeian decoration aim at an architectural breaking-up of the wall-space, allowing glimpses of landscape. The panels which originated in the oriental Greek world are enlarged in the Roman period to pictures in which the human figures are distinctly subordinate. "Contours and drawing dissolve in colors and light; the purely corporeal, plastic view is overcome; painting has entered on its own province." The Roman painter *Ludius* seems to have been an important figure in this development of landscape painting. According to *Petronius* Alexandrian art is to be credited with the invention of *compendiaria*, illusionistic or impressionistic devices which are exemplified in Pompeian work. Byzantine painting is marked by a complete reaction from this free, impressionistic style in favor of stiff and severe drawing and contour. Landscape vanishes, and art returns to a geometric type in harmony with its religious purpose and its architectural function.

The Signum Salamonis.—J. L. DE VASCONCELOS has published a detailed study of the *signum Salamonis*, the five-pointed or six-pointed star, in the superstition, folk-lore and art of Eastern and European peoples, ancient and modern. (*O Archeologo Português*, XXIII, 1918, pp. 203-316; 240 figs.)

Tattooing in Morocco.—J. HERBER discusses the persistence of tattooing among the Arabo-Berbers of Morocco, perpetuated by local tradition in opposition to the law of Islam. (*R. Hist. Rel.* LXXXIII, 1921, pp. 69-83.)

The Symbolism of Lizards and Frogs.—W. DEONNA maintains that certain Italian plastic vases showing a saurian devouring a boy are not of genre motive, but have a mystic significance. The lizard typifies the death which devours the body. Other animals have a similar rôle in various works of classical and mediaeval art. Legend also associates the toad or frog with the lizard in this symbolism of death. On the other hand both lizard and frog have a celestial as well as an infernal meaning, derived from ancient Egyptian religion. The frog is a symbol of immortality; the lizard of the sun. That the two sometimes appeared together in ancient art is indirectly attested by Pliny's story of the architects Sauros and Batrachos. Probably the relief which Pliny describes as a punning signature of two artists was really of symbolic meaning. The existence of the artists was an invention parallel to the story that Phidias portrayed himself on the shield of the Athena Parthenos. (*R. Ét. Gr.* XXXII, 1919, pp. 132-148; 2 figs.)

Sostratus of Cnidus and the Virtue of Invisible Formulae.—W. DEONNA (*R. Arch.*, fifth series, XIV, 1921, pp. 175-178) recalls the story (Lucian, *πῶς δεῖ ἱστορίας συγγράφειν*, 62) that Sostratus, the architect of the Pharos at Alexandria, inscribed his dedication on the stone of the building, then covered it with a coating in which the king's name was inscribed. Such action may, it is here suggested, have been inspired by the belief in the magic virtue of hidden writings, etc. Such a belief has existed through the ages. It may explain the fact that prehistoric paintings in caves are in their darkest recesses. Many examples of hidden writings, etc., are given.

The Musée Guimet.—The first number of a new archaeological publication, the *Bulletin Archéologique du Musée Guimet*, Fasc. I (pp. 1-72; 4 pls.; Paris and Brussels, 1921, Van Oest) is devoted to the Salle Edouard Chavannes of the Musée Guimet. P. PELLLOT contributes a biographical sketch of Chavannes, S. LEVI an estimate of his contribution to Indian studies. H. D'ARDENNE characterizes and compares three leaders of archaeological research in China: Chavannes, Petrucci, and Segalen, and PAUL VITRY has a separate essay on Segalen. The results of the expedition conducted by Chavannes in North China in 1907, of Segalen's expedition in Western China in 1914, and of the expedition conducted by Segalen and others in the region of Nankin in 1917 are described by J. LARTIGUE. A list of photographic negatives made by the last two expeditions is appended. *Ibid.* Fasc. II, 1921, pp. 1-38 (4 pls.) an account by P. PELLLOT of his expedition in 1908 to Chinese Turkestan is followed by a list of the Buddhist sculptures and paintings obtained by this expedition for the Musée Guimet, written by J. HACKIN. J. HACKIN also describes the pottery fragments from Yotkan now in the Musée Guimet. These were obtained by the Mission Scientifique de Haute-Asie (1890-1895) conducted by J. L. Dutreuil de Rhins. A note by J. BACOT, explaining the lack of archaeological material in Tibet, where he travelled in 1907 and 1909, is followed by a detailed description,

written by J. HACKIN, of five Tibetan Buddhist paintings acquired by M. Bacot in his travels, and now in the Musée Guimet.

Borneo Shields.—NENOZO UTSURIKAWA suggests that the demon design common on shields of Borneo tribes, although it, perhaps, has historical connection with Hindu-Javanese ornament, has been modified by native imitation of simian forms. (*Am. Anthr.* XXIII, 1921, pp. 138-148; 3 figs.)

EGYPT

Egyptian Remains at Byblos.—M. MONTET, after calling attention to the importance of Byblos to Egypt as the port through which the Egyptians were supplied with timber and resin, describes a few hieroglyphic inscriptions which have been found there and points out the probability that further discoveries of Egyptian objects would reward excavation on this site. (*C. R. Acad. Insc.* 1921, pp. 158-168; 7 figs.)

A Receipt of the XXII^d Dynasty.—G. MOLLER publishes a receipt for the payment of a loan, attested by six witnesses, which was discovered on the backs of leaves 10 and 11 of Hieratic Papyrus 3048 in the Berlin Museum. It belongs to the XXII^d Dynasty and so is the oldest known Egyptian document of its kind. It indicates that loans were made at the rate of 100 per cent. (*Sitzb. Ber. Akad.* 1921, pp. 298-304.)

A Roman Governor at Thebes.—J. BAILLET discusses certain inscriptions in the royal tombs at Thebes which have been attributed to the emperors Lucius Verus and Marcus Aurelius. A more complete reading of the inscription containing the name Aurelius Antoninus proves that the person named visited the tomb with his wife Isadora, and hence was a hitherto unknown and relatively unimportant Aurelius Antoninus. The inscription attributed to Lucius Verus is really that of a Roman governor named Lucius Aurelius Catulinus, who further commemorated his travels in Egypt by inscribing incorrect Greek verses on the colossus of Memnon and in one of the tombs of Tell-el-Amarna. (*C. R. Acad. Insc.* 1921, pp. 58-64.)

Hieroglyphic Signs for East and West.—G. MOLLER interprets two hieroglyphic signs as meaning east and west. As the first seems to refer to the "copper mountain," i.e. the Sinaitic peninsula, and the second to the "feather-wearers" or Libyans, it appears that the use of these signs must have originated in Lower Egypt, in the same latitude with Sinai and Libya. (*Sitzb. Ber. Akad.* 1921, pp. 168-170.)

A Certificate of Guardianship.—E. CUG republishes and comments on a Latin diptych which was found at Cairo and given to the University of Oxford by Professor Sayce. (See *The Bodleian Quarterly Record*, 1919, pp. 259, 262.) The document certifies that the prefect of Egypt, Q. Aemilius Saturninus, has appointed M. Julius Alexander guardian to Maevia Dionysarion, who is a Roman citizen; it is dated September 23, 198 A.D. and signed by seven citizens. In certain matters a woman could act legally only through a guardian; and if none were designated by the will of her father or other male relative, she could petition for the appointment of a guardian. This diptych does not give the whole text of the decree granting a guardian to Maevia, but gives the certified information necessary for any person entering into any contract with the persons concerned. In the archives of the prefecture of Egypt was kept a brevian-

rium containing summary records of official acts; and it was from this that such abridged certificates were copied. (*C. R. Acad. Insc.* 1920, pp. 40-56.)

A Mediaeval Romance Traced to Egypt.—JEAN CAPART suggests that certain features of the combat of Renart and Isengrin, in the mediaeval romance, may be traced to the Egyptian myth of the combat of Horus and Seth. (*C. R. Acad. Insc.* 1921, pp. 113-118.)

The False Egyptian Sarcophagus at Tarragona.—PIERRE PARIS describes in detail the now fragmentary pseudo-Egyptian sarcophagus at Tarragona. There can be no doubt that it is neither Egyptian nor Iberian, but is a modern forgery, the rather interesting figured decoration of which is intended to picture the coming of Heracles and his followers to Spain. (*R. Arch.*, fifth series, XIV, 1921, pp. 146-157; 6 figs.)

A Bibliography of Papyri.—A fourth part of the 'Bulletin Papyrologique' published by SEYMOUR DE RICCI has appeared, comprising the second part of a description of papyrological material published 1904-1912. (*R. Ét. Gr.* XXXIV, 1921, pp. 177-230.)

The Centenary of Champollion.—The centenary of the discovery of the reading of Egyptian hieroglyphics is marked by a review of the life and work of Champollion. (*The Times Literary Supplement*, London, Feb. 22, 1922, pp. 65-66.)

BABYLONIA, ASSYRIA AND PERSIA

The Elephant in Ancient Asia.—C. W. BISHOP shows that the Asiatic elephant was common in Syria and Mesopotamia in the period of the XVIIIth Egyptian dynasty. Elephants and ivory are mentioned in the Babylonian and Assyrian records down to the time of Shalmaneser III. By the time of Alexander the elephant had disappeared from Western Asia and was not to be found short of India. In China the elephant was abundant in prehistoric times, but it had already disappeared by the time of the earliest contemporary historical records, about 1000 B.C. The memory of it still lingered in the traditions of the earliest dynasties that were preserved in the classical literature. The sign for "elephant" is one of the few primitive pictographs that lies at the basis of the Chinese system of writing, and this shows that the animal must have been familiar to the inventors of the earliest written characters. (*J.A.O.S.* XLI, 1921, pp. 290-306.)

Babylonian Chronology.—A. T. CLAY gathers up all the material that has been discovered in the course of the last fifteen years that bears upon the old Babylonian dynasties, and gives a reconstructed list of the twenty-two dynasties before the first dynasty of Babylon with the names of the successive kings and the years of their reigns that are recorded on the tablets. If we leave out of account the first two dynasties, where the lengths of the reigns are fabulously large, and allow an average of only fifteen years for each of the kings of the succeeding dynasties, we obtain 4000 B.C. as a minimum date for the first dynasty of Ur. The thirty-four kings of the first two dynasties would carry us back several centuries earlier. These kings, even Etana, Lugal-Marda, Tammuz, and Gilgamesh, were historical early monarchs. "It is not improbable that even the goddess Ishtar may prove to have been originally some notable human figure." Back of the recorded dynasties lies a prehistoric period of the development of civilization in Babylonia that carries us back as far as 6000 B.C. (*J.A.O.S.* XLI, 1921, pp. 241-263.)

The Early Sumerian Religion.—J. P. PETERS maintains that the fundamental fact in the early Sumerian religion was the mystery of sex. Procreation was creation, and creation was conceived as procreation. The earliest liturgies are full of descriptions of sexual intercourse between gods and goddesses through which all things come into being, and vast numbers of phallic emblems have been discovered in all the mounds of Babylonia. The two most conspicuous features of nature in Babylonia were the annual inundations of the rivers on which the fertility of the land depended, and the raised mounds on which the villages and the mountain-house of the god stood. The former was personified as a fruitful mother, the latter as a male principle. On the proper union of these two as man and wife prosperity and security depended, and toward the consummation of this result the whole early Sumerian liturgy and ritual were directed. In essence these two divinities were the same in all places, but they assumed different names in different localities. Thus differentiated they came to be regarded as separate deities, and were adopted from one place to another, with a tendency to a specialization of functions, making them in the end separate gods. This was true especially of the male element of deity, which seemed, somehow, to lend itself more readily to polytheism than the female, which latter presented itself much more as a unity, merely called by different names. Thunder-storms, rain, and sickness were regarded as the work of evil spirits, and the great father and mother were invoked for protection against these. With the development of the city the king as the representative of the god came to be deified and partly identified with the male principle that controlled the inundations and brought fertility out of them. Astral cults were not a part of the earliest Sumerian religion, but are to be regarded as new elements brought in by the Semitic invaders. (*J.A.O.S.* XLI, 1921, pp. 131-149.) This paper is discussed by G. A. BARTON. (*Ibid.* pp. 150-151.)

The Farnbāg Fire.—Among the sacred fires of Zoroastrian antiquity three stand out as specially ancient and sacred: the *Farnbāg* fire, or "fire of the priests"; the *Gūshnasp* fire, or "fire of the warriors"; and the *Būrzān-Mitrō* fire, or "fire of the workers." The oldest and most famous of these is the *Farnbāg* fire, and its original location is a matter of considerable archaeological and historical interest. A. V. W. JACKSON investigates the evidence, and comes to the conclusion that the traditions in regard to the *Farnbāg* fire, or fire of Jamshīd, so far as available, seem to agree as to the fact that it was established by Jamshīd originally in Khvārazm (Khīva), but was removed from there later, in the time of Zoroaster, to another locality, probably Kāriyān in the Province of Fārs. The whole of the old oriental testimony is to this effect and is borne out by the ruins of the fire-temple still existing at Kāriyān and by modern accounts of the town and its legends. (*J.A.O.S.* XLI, 1921, pp. 81-106.)

The Excavations of Victor Place.—MAURICE PILLET continues the publication and elucidation of documents relating to the excavations carried on by Victor Place in Assyria. (*R. Arch.*, fifth series, VI, 1917, pp. 171-196; 2 figs.) The documents here published relate to the various attempts made to recover the sculptures which were sunk in the Chatt-el-Arab in May, 1855. Further documents are published *ibid.* VII, 1918, pp. 113 ff. and VIII, 1918, pp. 181-204. The documents contained in the last article comprise the inventories of

the antiquities brought by Place to Europe and the budgets of his excavations and publications.

A Sassanian Inscription.—J. DE MORGAN proposes a reading and interpretation of a hitherto undeciphered sign which occurs on Sassanid coins, beginning with the time of Hormisdas IV. The epigraphic reading is ARMN; the word is *kharman*, which unites the ideas of wrath, force, power—perhaps best rendered "puissance." (*C. R. Acad. Insc.* 1920, pp. 231-240.)

SYRIA AND PALESTINE

Importance of Research in Syria.—J. A. MONTGOMERY calls attention to the importance of archaeological research in Syria, and to the opportunities for such study which are opened by the establishment of the American School of Oriental Research in Jerusalem. (*Annual Report of the Smithsonian Institution*, 1919, pp. 433-441; 3 pls.)

The Earliest Canaanite Inscriptions.—CH. BRUSTON discusses the early Canaanite inscriptions from the region of Sinai. He gives their meaning and offers new readings. The name of the goddess Hathor is, he asserts, Semitic, signifying "abundance." These are the earliest alphabetic inscriptions known, dating some 500 years before the rise of the Phoenicians. The dialect is that of the inhabitants of Goshen (i.e. Hebrews) before the time of Moses. It is from this primitive alphabet, transmitted through Arameans or Syrians and the Greek colonies of Asia Minor, rather than from the Phoenician alphabet, that the Greek alphabet is derived. The order of the letters in the alphabet was probably arranged so that their names, as pronounced, made a sentence. (*R. Arch.*, fifth series, XIV, 1921, pp. 49-80; two pages of alphabets and fac-similes.)

The Meaning of the Word Ariel.—The word *ariel* occurs a number of times in the Old Testament and in the Mesha Inscription. It seems to have four distinct meanings, hero, image, altar, and a synonym for Jerusalem. S. FEIGIN seeks to correlate these by the assumption that the word is derived from *Aralu*, the Babylonian name for Hades. *Ariel* then means the dead, an image of the dead, an altar for the cult of the dead, and the necropolis of ancient Jerusalem in which the tombs of the kings were located. This interpretation is supported by *Isa.* xxix, 2, where *Ariel* is used as a synonym for Hades. (*J. Bibl. Lit.* XXXIX, 1920, pp. 131-137.)

The Babylonian Temple-Tower and the Altar of Burnt-Offering.—W. F. ALBRIGHT holds that *Ariel* as a name of Jerusalem is identical with Babylonian *Aralu*, the mountain of god, the abode of the dead. The Temple resembled a Babylonian temple-tower of three stages, and the altar of burnt-offering was a miniature temple-tower of three stages. (*J. Bibl. Lit.* XXXIX, 1920, pp. 137-142.)

The Solid Ephod of the Ancient Hebrews.—K. BUDDE examines afresh the evidence in regard to the *ephod* mentioned in the Books of *Judges* and *Samuel*, which was made of metal, set up, carried by the priests, and used as a medium for obtaining oracles. He rejects the view of W. R. Arnold in his recent work *Ephod and Ark* that the solid *ephod* is everywhere a Jewish scribal substitute for "ark," and maintains instead that *ephod* is a correction of *abbir*, "bullock," a designation of the golden bull-images of Yahweh that were used by ancient Israel. (*Z. Alttest. Wiss.* XXXIX, 1921, pp. 1-42.)

Alleged Palestinian Pyxes.—S. RONZEVILLE shows that the little pottery objects with bits of glass in the centre, which are often found in the tombs of Palestine, are not pyxes for depositing the Eucharist with the dead, but are simple mirrors. Some of these disk-shaped objects are held by female figures of the Astarte type, which precludes the possibility of any Eucharistic connection; and traces of the lead with which these mirrors were backed have also been discovered. (*Pal. Ex. Fund*, LIII, 1921, pp. 172-174; 2 pls.)

The Inscription of Theodotus.—L. H. VINCENT gives an elaborate account of the "Synagogue of the Freedmen" and the inscription of Theodotus discovered by R. Weill in the excavations at Mount Zion during the winter of 1913-14. (*R. Bibl.* XXX, 1921, pp. 247-277; see *A.J.A.* XXV, 1921, p. 168.)

The Princeton Expedition to Syria.—With the issue of the seventh part of the section devoted to Southern Syria (Division II, Section A, Part 7, pp. 403-473; pl. 29; figs. 352-388) Professor HOWARD CROSBY BUTLER completes the publication of the results attained in the field of ancient architecture by the Princeton expeditions of 1904-1905 and 1909. The sites described, all of which are in the Ledja, are the following: Brêkeh, Djdyeh, Rîmet il-Luhf, Tell id-Dibbeh, Nedjran, Dêr il-Asmar, Umm il-'Alak, Beshm, il-'Ahreh, Smêd, Mdjêdil, Wakm, Khurêbât, Kharsah, Lubben, Djren, Harrân, Msêkeh, il-Ubêr, Sâr, il-'Asim, Djedil, Dâmit il-'Alyâ, Dêr idj-Djûwâni, Djisreh, Zubaiyir, Zebîr, Sha'arah, Mismiyeh, Taff, Sahr, Hammân and Tubbeh. The inscriptions found on the same sites are published by ENNO LITTMANN and DAVID MAGEE, JR., in Division III, Section A, Part 7 (pp. 373-488). There are 130 in all.

The Hittite Language.—M. BLOOMFIELD (*J.A.O.S.* XLI, 1921, pp. 195-209) discusses the Hittite documents from Boghazkeui and the treatise on the Hittite language recently published by F. Hrozný with a view to the alleged Indo-European character of the Hittite language. The Indo-European aspects of "Hittite" have no basis in any known historic colonizations by Indo-Europeans of parts of Asia Minor. We should have to assume an Indo-European settlement many centuries prior to the Aryan, Celtic, Italic, and Hellenic migrations. "Hittite" seems to contain an injection of Indo-European material in a composite pidgin-Kanesian, but even this is not quite certain. "Hittite" has scarcely a noun of indisputable Indo-European etymology, except *wadar*, said to mean "water." The verbal inflections are at points bewitchingly Indo-European, at other points they are no less bewitchingly mystifying. Not a dozen verbs are securely of Indo-European etymology. The pronouns look Indo-European, but only the indefinite-interrogative is certain. The heaping of conglutinative particles combined with the conglutinative use of personal pronouns at the end of nouns is non-Indo-European. *Ibid.* pp. 210-224, J. D. PRINCE comes to the conclusion that "Hittite" displays a mixed and, at the present moment, in many instances untraceable morphology. It is highly probable that this idiom may have to be classified eventually in a group by itself, perhaps standing half way between Indo-European and non-Aryan languages such as Finno-Ugric and Turkic.

A Series of Seleucid Tetradrachms from Tyre.—E. T. NEWELL attributes to the mint of Tyre a series of Seleucid tetradrachms and drachms of the period 200-150 B.C. Hitherto only bronze coins of this date have been definitely assigned to Tyre. The silver series is homogeneous, and similar in style to the

later Phoenician tetradrachms of Alexander Bala, known to have been struck at Tyre. The constant use of the club as a symbol confirms the attribution. [*The First Seleucid Coinage of Tyre*, Num. Notes, No. 10; New York, 1921, American Numismatic Society; 40 pp., 8 pls.; 16 mo.; \$1.]

New Seleucid Copper Types.—EDGAR ROGERS describes new types on the copper coinage of the Seleucid monarchs, which will help to fill in "the sketchy classifications of past days." Prominent in his list are a Demetrius I with a full-face head of Pallas, and a new coin of Alexander Zebina with an elephant's head, recalling earlier Syrian issues. (*Num. Chron.* 1921, pp. 26-36; pl.)

ASIA MINOR

The Aramaeo-Lylian Inscription of Sardis.—A. E. COWLEY publishes a new interpretation of the bilingual inscription from Sardis, differing in many particulars from Littmann's reading. The Aramaic of the inscription is provincial and somewhat incorrect; the Lydian writer uses Aramaic "as our diplomats speak French." (*C. R. Acad. Insc.* 1921, pp. 7-14.)

The Sun-dials of Pergamon.—That the twin sun-dials of Pergamon had gnomons of equal length (cf. *Ath. Mitt.* XXXVI, 1911, 251 ff.) is proved by the independent and purely mathematical studies of J. Drecker. (A. REHM, *Ath. Mitt.* XL, 1915, p. 111.)

The Temple of Athena at Priene.—A. VON GERKAU argues (against Wilberg, *Ath. Mitt.* XXXIX, 1914, pp. 72 ff.) that the frieze was lacking in the Athena temple at Priene. The Ionic frieze, he thinks, arose in the west under the influence of the Doric order. (*Ath. Mitt.* XLIII, 1918, pp. 165-176; 3 figs.)

A Guide to Ephesus.—In 1915 the Austrian Archaeological Institute published in the small compass of ninety pages a guide to the ruins of Ephesus written by Dr. J. KEIL. After a description of the site the author sketches the history of the town from its foundation down to its destruction at the beginning of the fifteenth century A.D. He then describes the various buildings of which remains exist, gives illustrations of many of them, and sometimes plans and reconstructions. He also includes important Turkish remains. There is an introduction by E. Reisch. [*Führer durch Ephesos*. VON JOSEPH KEIL. Vienna, 1915, Holder. 90 pp.; 46 figs.; 2 maps.]

An Ephesian Decree.—E. WEISS discusses the inscription from Ephesus published by R. HEBERDEY, *Jh. Oest. Arch. I.* 1904, cols. 4 ff. (*Ibid.* XVIII, 1915, Beiblatt, cols. 285-306.)

Monuments of the Mother Goddess.—J. KEIL publishes a relief found at Ephesus in 1912 representing a seated woman holding a patera in her right hand and a large drum in her left. In front of her are two seated lions, and on either side a standing male figure, one youthful and the other of middle age. The relief came from the sanctuary of the Mother Goddess identified by inscriptions. Thirteen other monuments of the same character are described. (*Jh. Oest. Arch. I.* XVIII, 1915, pp. 66-78; 14 figs.)

A Drachma of Smyrna.—A drachma (in the British Museum), having a seated Homer on the reverse, is now added by J. G. MILNE to his classification of Smyrnaean silver coins in *Num. Chron.* for 1914. It is judged by him to be earlier as well as artistically finer than the usual Homereia of Smyrna. He would class it with the first issues of coins of that type, and assign as an approximate date 180 B.C. (*Num. Chron.* 1921, pp. 143-144; pl.)

GREECE

ARCHITECTURE

The Doric Temple.—The origin of the Doric temple is discussed by G. RODENWALDT. As being merely the home of the cult statue the Greek temple could not have arisen in the Geometric period, when no large statues were made, nor was it a development of the Mycenaean megaron. It came rather from the continental country house of the seventh century and earlier, was developed under Egyptian influence, and was originally of stone. The use of wooden columns in the Heraeum at Olympia was a provincialism. (*Ath. Mitt.* XLIV, 1919, pp. 175-184.)

The Development of the Doric Capital.—W. WILBERG discusses the development of the Doric capital. (*Jh. Oest. Arch. I.* XIX-XX, 1919, pp. 167-181; 4 figs.)

The Columns of the Olympieum.—In a study entitled 'The Age of the Extant Columns of the Olympieum at Athens,' A. D. FRASER comes to the conclusion that these columns, which have been attributed by Penrose and others to the period of Antiochus Epiphanes, are actually of the time of Hadrian. (1) The workmanship of the columns is not too fine for the Greek style of Hadrian's period, which was marked by a revival of Hellenism. (2) The lack of exaggerated entasis is not alien to the best art of this period. (3) The lines of the abacus, which Penrose thought characteristically Hellenistic, are almost identical with those of the Corinthian capital of the Arch of Hadrian at Athens. (4) The type of the acanthus leaf, which Penrose compared to that of the tholos at Epidaurus, is no more imitative of that model than are other Hadrianic capitals. On these four counts, the columns could as well be Hadrianic as Hellenistic. The question is settled by a detail in the design of the capitals: (5) The acanthus bloom represented in the centre of each side of the abacus is supported by a slender stalk rising between the inner volutes. This supporting stem is not found on capitals of earlier than Roman date, but is characteristic of Imperial architecture. It is found on the capital of the Ara Pacis, and on the Arch of Hadrian at Athens. (*Art Bulletin*, IV, 1921; pp. 5-18, 2 pls.)

SCULPTURE

A Minoan Bronze Statuette in the British Museum.—A small and somewhat roughly cast statuette of almost pure copper, of unknown origin, which has been in the British Museum for many years, is now seen, from its likeness to the praying figure from Tylissus in Crete, published in 1912, to be Minoan, and presumably of the M. M. III period. It represents a male votary standing in the attitude of prayer, with the right hand raised to the forehead, palm up, and the left arm dropped at the side. The exaggerated hollow of the back and the costume of boots, kilt and belt are characteristically Minoan, and a snake in the hair connects the object with the worship of the Cretan snake goddess. (F. N. PRYCE, *J.H.S.* XLI, 1921, pp. 86-90; pl.; 3 figs.)

The Gigantomachy in the Pediment of the Old Athena Temple.—R. HEBERDEY discusses the composition of the gigantomachy in the pediment of the old temple of Athena on the Acropolis (*Jh. Oest. Arch. I.* XVIII, 1915, pp. 40-56; 7 figs.). H. SCHRADER dissents from some of Heberdey's conclusions (*Ibid.*

XIX-XX, 1919, pl. 154-161; 10 figs.). HEBERDEY defends his position (*Ibid.* Beiblatt, cols. 329-340), which is further criticised by SCHRADER (*Ibid.* cols. 341-346).

BERLIN.—An Early Bronze Mirror Handle.—C. PRASCHNIKER publishes an archaic bronze statuette which once formed the support for a mirror. It represents a nude female figure in high head-dress holding castanets in her extended right hand. The left hand and feet are missing. Above the right shoulder is a small winged figure. An amulet is attached to a cord running over the right shoulder and under the left arm. The hair hangs down the back. The figure was found at Vonitz on the Gulf of Ambracia, and is now in the Berlin museum. It dates from the second half of the sixth century B.C. (*Jh. Oest. Arch. I. XVIII*, 1915, pp. 57-60; 3 figs.)

An Apollo Head in Vienna.—There is in the possession of the University of Vienna a head of Apollo, best known in another replica in Kassel. A. SCHÖBER compares all the copies and discusses their relative nearness to the original. The earliest copy appears to be an unpublished head in Athens. (*Jh. Oest. Arch. I. XVIII*, 1915, pp. 79-93; pl.; 14 figs.)

The Athena Parthenos and the Olympian Zeus of Phidias.—F. WINTER argues from a study of the bases of the two statues in their relation to the temples in which they stood that the Athena Parthenos of Phidias is earlier than his Zeus at Olympia. (*Jh. Oest. Arch. I. XVIII*, 1915, pp. 1-16; 4 figs.)

Two Masterpieces of the Youthful Phidias.—W. KLEIN argues that the Lemnian Athena, correctly recognized by Furtwängler in the Dresden Athena, did not stand alone but had a companion figure which represented Hephaestus. A head in the Museo Barracco, of which a copy is in Petrograd, was connected by Furtwängler with the Lemnia. It is in reality a copy of the head of the Amazon of Phidias, which is to be reconstructed with the right hand grasping the spear above, while the left rests lightly on the shaft. The point is turned upward. The Lemnia, like the Amazon, was an early work of Phidias, perhaps a memorial of the Persian Wars, and not dedicated by Athenian clerouchs setting out for Lemnos. The Madrid statuette of Athena may be a copy of the Promachos. (*Jh. Oest. Arch. I. XVIII*, 1915, pp. 17-39; 16 figs.)

The Parthenon Frieze.—G. FOUGÈRES renews the discussion of the motive of the Parthenon frieze. The subject of the archaic "Erechtheum" pediment in the Acropolis Museum cannot have been a prototype of that of the Parthenon frieze, because it has not been demonstrated that this pediment showed any processional figures. Nor has it been proved that the archaic relief of a figure mounting a chariot belongs to a frieze from the pronaos of the Pisistratean hecatompedon. More probably it and the other reliefs which seem to have been associated with it are from the pedestal of an ex-voto. In motive the Parthenon frieze finds its only true analogy in votive reliefs. As these express in a graphic and popular style the devotion of an individual or a family to a divinity, so the Parthenon frieze commemorates the devotion of the city of Athens to its protecting goddess. The idea of this sublimation of a motive of popular art to a monumental purpose was original with Phidias. He placed his great votive relief in the only position suitable to its function. The pediments and metopes were traditionally reserved for the representation of myths. (*R. Ét. Gr. XXXII*, 1919, pp. 208-226.)

Lycius.—Lycius, son of Myron, is the subject of a detailed investigation by

Carlo Anti (*B. Com. Rom.* XLVII, 1919, pp. 55-138; 2 pls.) The Demeter of Charchel, a herm in the Barracco Museum, the figure of a boy in the Antiquarium on the Caelian, and a boy in basalt in the Palatine Museum are ascribed to this artist. The stylistic similarity of these works to the great Eleusis relief is pointed out. The best part of the east front of the Parthenon frieze (Iris, Hera, Zeus, Athena, Hephaestus and the presentation of the peplos) is also claimed for Lycius. Lycius shows the influence of Myron only in technical matters, otherwise he is influenced more by the pre-Polyclitan Peloponnesian school and by Phidias. His chief characteristic is "illustrationism." He was active before 450 and after 420 B.C.

Two Greek Heads in the Fogg Museum.—A new publication of the Fogg Art Museum of Harvard University is inaugurated with a brief discussion of



FIGURE 1.—HEAD OF WARRIOR: FIFTH CENTURY: CAMBRIDGE.

two marble heads recently acquired by the Museum. (1) The first, which is fragmentary, is part of a statue of a warrior, wearing a close-fitting Attic helmet of simple form (Fig. 1). The material is Pentelic marble, and the subject suggests a comparison with the Borghese Ares in the Louvre. That, however, is a copy of a more subtly modelled and sophisticated work. The head at Cambridge may be assigned to an Athenian sculptor of about the date of the Parthenon pediments. (2) The second head (Fig. 2), which shows much more variety and richness of modelling, belongs to the early years of the fourth century B.C. The shape of the skull and face suggests that it is a work of the Attic school. The somewhat swollen ears indicate that the subject is an athlete. The material is Parian marble. (*Notes*, Fogg Art Museum, Harvard University, I, 1921, pp. 3-8; 6 figs.)

The Sculptures of the Argive Heraeum.—F. EICHLER publishes a detailed study of the fragmentary sculptures of the Argive Heraeum. (*Jh. Oest. Arch.* I. XIX-XX, 1919, pp. 14-153; 86 figs.)

Attic Reliefs.—O. WALTER has succeeded in adding new pieces to several reliefs in Athens. (*Jh. Oest. Arch. I. XVIII*, 1915, Beiblatt, cols. 87-98; 4 figs.)

Scopaic Heads.—B. B. MANCINELLI discusses and gives detailed measurements of three Scopaic heads in Rome. (*B. Com. Rom. XLVII*, 1919, pp. 45-53; 2 pls.)

The Niobids.—GEORG LIFFOLD (*Röm. Mitt. XXXIV*, 1919, pp. 17-23) calls attention to the wrong restoration and combination of the fragments of the Petrograd relief of the Niobids and discusses the original grouping. GEORG RODENWALDT (*Ibid.* pp. 53-73) claims the Niobe group was carved about 340 B.C., probably in Asia Minor under the influence of the activity of Scopas and

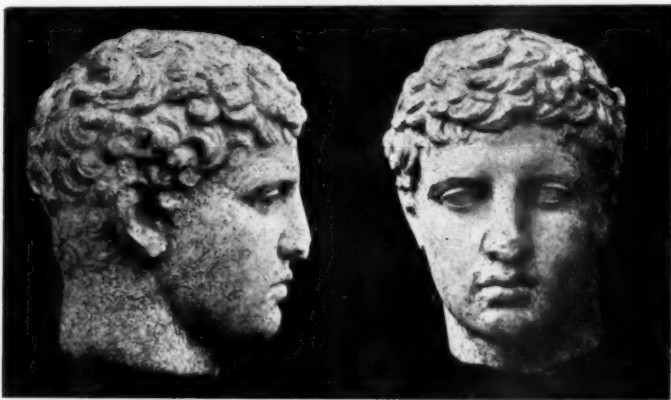


FIGURE 2.—HEAD OF ATHLETE: FOURTH CENTURY: CAMBRIDGE.

Praxiteles and was later removed to Rome. The Florentine group is the best copy now extant. One of the Niobids was used as a model, probably to represent some other subject, by a "baroque" artist in early Hellenistic times. The Chiaromonti Niobid is this Hellenistic original.

The Head of a Youth.—A. SCHÖBER publishes the head of a youth in Vienna purchased from a dealer in Rome. It is a good copy of an original, perhaps an ideal portrait, of the fourth century B.C. (*Jh. Oest. Arch. I. XIX-XX*, 1919, pp. 182-189; pl.; 3 figs.)

Two Groups of Sculpture.—W. KLEIN attempts to recover among existing marbles parts of the group of four satyrs mentioned by Pliny, *N. H. XXXVI*, 29. Two infant satyrs' heads in Boston, a satyr's head in Dresden and a satyr in the Vatican bearing the young Dionysus on his shoulders may be traced back to this group. Another group, the symplegma of Heliodorus, is to be found in the Pan and Daphnis in the museum at Naples. (*Jh. Oest. Arch. I. XIX-XX*, 1919, pp. 253-267; 6 figs.)

The Original Position of the Vienna Athlete.—R. HEBERDEY argues that the bronze athlete in Vienna stood in a small room outside the northwest corner

of the large hall, A1, in the Baths of Constantine at Ephesus; and that it stood by itself and did not form part of the decorative scheme of the building. (*Jh. Oest. Arch. I.* XIX-XX, 1919, pp. 247-252; fig.)

A Statuette of Cybele in Vienna.—VALENTIN MUELLER (*Röm. Mitt.* XXXIV, 1919, pp. 82-106) discusses a statuette of Cybele now in Vienna, which is a copy of a fine Pergamene statue of the second century.

A Hellenistic Portrait.—A. HEKLER publishes the portrait head of an aged man in the National Museum at Athens. He compares it with the portrait of the aged Homer and suggests that it represents Hipponax. It dates from the first century B.C. (*Jh. Oest. Arch. I.* XVIII, 1915, pp. 61-65; 4 figs.)

Studies of Two Reliefs.—J. SIEVEKING presents new interpretations of two reliefs. (1) The relief from the Athenian olive wood, now in Berlin (Conze, *Att. Grabr.* IV, p. 8, No. 1743) is an ex-voto of the early Imperial period, dedicated by a Roman family in honor of the teacher from whom they learned Greek. The curious representation in the upper part of the relief is the letter Ψ , and is a reminder of the introduction of this letter in the Ionic alphabet at Athens. The dignified seated figure at the left in the relief is a statue of Archinus, who made this reform. The Roman family is shown at the right, their teacher at the left of this figure. The great area of free space in this relief leads the author to discuss the function of accessories in Hellenistic relief. Their use is not due to the idyllic spirit or to a desire for depth or picturesque effect, but rather to the Hellenistic tendency to individualize each person and act. (2) A pair of Bacchic reliefs in Rome (Matz-Duhn, *Ant. Bildwerke in Rom.* I, No. 2311) has been regarded by Robert as a pastiche. It is more probably a unitary work, representing the planting and the fruitage of the vine in Icaria, in the presence of Dionysus, Icarus, and other figures of the legend. If Robert's objection that in the fourth century A.D., to which the relief has been held to belong, this myth would not have been known, is valid, the relief may be a creation of the Renaissance. (*Hermeneutische Reliefstudien, Sitzb. Mün. Akad.* 1920; 31 pp.; 3 figs.; 8vo.)

The Temple Servant of Nicomachus.—J. BANKO (*Jh. Oest. Arch. I.* XIX-XX, 1919, pp. 296-298; pl.; fig.) publishes a bronze statuette of an old woman, apparently a priestess or servant, in Vienna. It was found at the ancient Noviodunum in 1893 and is .148 m. high. The hands and feet are missing. It was, perhaps, part of a group. *Ibid.* pp. 299-316 (4 figs.) E. REISCH argues that this is a copy of the statuette of the temple attendant, Lysimache, mentioned by Pausanias, I, 27, 4 (reading *Λυσιμάχη*). The inscribed base of the original statuette still exists and shows that the old woman's name was Syeris (cf. the corrupt reading *εὐήρης* in Pausanias), and that Nicomachus, a sculptor of the fourth century B.C., was the artist. The portrait of Lysimache herself was by Demetrius of Colophon and is, perhaps, reproduced in the portrait head of an old woman in London.

A Head of Zeus from Aegira.—O. WALTER publishes the colossal marble head of Zeus found at Aegira in 1915 and now in Athens. The head is 0.87 m. high and was cut away behind, evidently for the purpose of being backed with stone or some other material. The head is identified with the head of the cult statue of Zeus by the Athenian sculptor Euclides mentioned by Pausanias (VII, 26, 4). The statue is reproduced on coins of Aegira of the time of Septimius Severus. (*Jh. Oest. Arch. I.* XIX-XX, 1919, pp. 1-14; 2 pls.; 9 figs.)

Statues in Armor.—A. HEKLER discusses problems connected with the history of statues of men in armor. The type, common in imperial Roman times, was derived from the Greeks. (*Jh. Oest. Arch. I. XIX-XX*, 1919, pp. 190-241; 51 figs.)

VASES AND PAINTING

Geometric Vases.—B. SCHWEITZER continues his studies in the chronology and history of Greek geometric vases, the first part of which appeared as a dissertation in 1918. He attempts to establish the dates of the founding of the Greek colonies in the west; examines the relation of the various types of graves on geometric sites, and then traces the development of the style with reference to the adjustment of decoration to the field. He concludes that the essential principle of geometric as a new variety, lies in its tendency to "plastic," rather than "picturesque," representation. As an appendix he publishes the twenty-one late Attic Dipylon vases of the Lambros collection. (*Ath. Mitt. XLIII*, 1918, pp. 1-152; 6 pls.; 32 figs.)

Red-Figured Vases in the British Museum.—A list of the Attic red-figured vases acquired by the British Museum since 1895 and not included in the Catalogue issued in 1896, is given by H. B. WALTERS (*J.H.S. XLI*, 1921, pp. 117-159; 7 pls.; 14 figs.). Forty-seven vases are described and many of them illustrated, and a list of seventeen others which have been published elsewhere is appended. They date from the earliest transitional period to the middle of the fourth century and are divided into five classes established by J. B. Beasley in his *Attic Red-Figured Vases in American Museums*, the last class of "ripe free" or "late fine" style, being the most numerous. One of the cylices of the early archaic period is the best of the known examples of the work of the potter Euergides. Chachrylion's signature also occurs. Among the unusual or interesting subjects are Theseus and the dead Minotaur, and gryphons guarding a heap of gold, after Herodotus's story of the Arimaspians' country in western Siberia (IV, 13; III, 116). Many of the latest vases, some of which are of South Italian manufacture, depict marriage scenes and the home life of women, a wedding procession on a very fine pyxis being especially detailed.

Dynamic Symmetry: A Criticism.—E. M. BLAKE shows that from a mathematical standpoint the formulae evolved by Hambidge as normative for Greek pottery can be applied, within the limits of error in measurement, to any proportions whatsoever. The possibilities of each of the so-called root systems, either those used by Hambidge, or infinite others, are boundless, so that there is no telling by measuring an object from which root system, if any, it may have been evolved. (*Art Bulletin*, III, 1921, pp. 107-127; 20 figs.)

INSCRIPTIONS

Greek Epigraphy in 1919-1920.—A summary of books and articles dealing wholly or in part with Greek inscription, most of which appeared in 1919 and 1920, is published by M. N. TOP (*J.H.S. XLI*, 1921, pp. 50-69). The periodicals cited are English, American, French, German, Italian, Greek, and Roumanian, and the regions covered, beside Greek lands on the Mediterranean and Black Seas, include Syria, Palestine, Arabia, France, Northern Italy and Switzerland. The issue of two more installments of the third edition of Dittenberger's *Sylloge*, the lively interest shown in the origin of the Greek alphabet,

and the unexpected scarcity of material from newly accessible Macedonia, are among the points noted.

A Decree from Chaeronea.—M. HOLLEAUX publishes with detailed commentary a Chaeronean decree discovered at Delphi, relating to the first war of Mithradates. The inscription proves that at the outbreak of the war the Odrysi were governed by Sadalas; that this Sadalas was an ally of the Romans and furnished them with troops which served under Sulla at Chaeronea and Orchomenos in 86 B.C.; and that during his siege of Athens, Sulla took care to have Boeotia occupied by his own or auxiliary troops. (*R. Ét. Gr.* XXXII, 1919, pp. 320-337.)

COINS

Misunderstood Titles on Greek Coins.—R. MÜNSTERBERG discusses the following misunderstood titles on late Greek coins: ἄγνος, ἀρχή, ἀρχιερώμενος, ἀσιαρχ τῆς πατρίδος, θναυδρικός, ἐγλογιστής, ἐπιμελήσας, παραδοξοικός, ἑπατος, φιλαλήθης, φιλοκαίσαρ and χίλαρχος. (*Jh. Oest. Arch. I.* XVIII, 1915, Beiblatt, cols. 307-324; 2 figs.)

GENERAL AND MISCELLANEOUS

The Silver Vase from Mycenae.—V. STAIS restores the famous silver vase from Mycenae as a rhyton of the familiar Cretan shape (Fig. 3). The scene is interpreted as an attack upon a walled city by the crew of a pirate ship.



FIGURE 3.—SILVER RHYTON
FROM MYCENAE.

At the bottom is a net or scale pattern. The work is assigned to a local artist and is dated soon after M. M. III. On p. 112 Stais calls attention to a new drawing of the vase by E. Gillieron, Jr., in which the improbable irregularity of outline is corrected by lengthening the rhyton and straightening the line of the sides. (*Ath. Mitt.* XL, 1915, pp. 45-52, 112; 2 pls.)

A Hittite Motive in Mycenaean Art.—V. K. MÜLLER compares the ornamental device on the head of the "stickpin" from Mycenae (cf. *Jb. Arch. I.* XXX, 1915, pp. 289 ff.) with Hittite cylinders representing the Magna Mater. The Mycenaean artist used the Hittite features of extended arms, horizontal lines at the hips and half-circle over the head, but translated the semi-circle into a vegetable motive. (*Ath. Mitt.* XLIII, 1918, pp. 153-164; 5 figs.)

The Phaestus Disk.—R. A. S. MACALISTER makes some fresh observations on the curious stamped disk found at Phaestus.

The disk, being unique in Crete, is not indigenous there, but is imported from some foreign land. That land must have been remote, since no other documents of the same sort have come to light. The lack of costume in the human

figures of the disk suggests a tropical, possibly an African origin. The disk would not have been preserved in Crete unless it had some importance. This suggests that it was a treaty or diplomatic communication, and the use of stamps in producing it also suggests an office in which such stamps were kept. This seems to preclude the idea that it was a religious, literary, or musical composition. Can it have been an official communication from some African kingdom with which the Cretan traders had commercial relations? (*Pal. Ex. Fund*, LIII, 1921, pp. 141-145.)

The Whorl from Hagios Onuphrios.—CHAMPLIN BURRAGE begins a series of studies of Minoan inscriptions with a discussion of the whorl found at Hagios Onuphrios near Phaestus (*Scripta Minoa*, I, p. 118, figs. 52a and b). The characters on both sides which Sir Arthur Evans has taken as ideographs are to be read as phonetic letters. The shorter inscription is K(a)l=Kάλος (Τάλος); the longer is K(a)l'kin(i)(a)=Καλχίω(α) (Τελχίω(α)). Three different legendary figures called Talos are associated with Crete; and the Telchinians of Rhodes are said to have migrated from Crete. (*Harvard Studies in Classical Philology*, XXXII, 1921, pp. 177-183; 2 figs.)

The Human Figure in Archaic Art.—G. VON LÜCKEN reviews the development in the representation of the human form by Greek vase painters and sculptors to the end of the archaic period. The former focused his attention chiefly on the human figure in motion; the latter endeavored to express the "corporality" of his subjects. At the end of the period the two aims coalesce, and from now on each branch of art could have greater influence on the other. (*Ath. Mitt.* XLIV, 1919, pp. 47-174; 6 pls.; 17 figs.)

Ancient Greek Weaving.—J. Six points out that women are depicted on Greek vases weaving upon a small upright frame held in the lap. There were upper and under threads and the pattern was produced by carrying the threads over and under according to a definite plan. The process is known in Germany as "*durchbrochene Arbeit*." (*Jh. Oest. Arch.* I. XIX-XX, 1919, pp. 162-166; 5 figs.)

The Delphic Omphalos and Egyptian Religion.—T. HOMOLLE compares the Delphic omphalos with an object frequently represented in Egyptian paintings and described as a "vaulted chamber" typifying the funerary region in which Osiris is buried and restored to life. It is flanked by two birds recalling the two eagles of Delphi. According to one tradition the Delphic omphalos was the tomb of Dionysus; another made it the grave of the serpent Pytho. The cult of Dionysus was associated with serpents; and the serpent at Delphi may have originally been a symbol of the god. The identification of Dionysus with Osiris is even earlier than Herodotus; and the omphalos at Delphi may be a cult symbol originally transmitted from Egypt, perhaps through Crete. (*R. Ét. Gr.* XXXII, 1919, pp. 338-358; 12 figs.)

The Name of the Ionians.—A. CUNY, in a study of the history of the name "Ionian" concludes that the ancient name **Yaw* had lost its final *w* before the Greek occupation of the region later called Ionia. At this time **Yawan* or **Ya* was indiscriminately used as the name of the eponymous ancestor of the race. (*R. Ét. Gr.* XXXIV, 1921, pp. 155-162.)

The Dorian Invasion.—STANLEY CASSON has published a new examination of the literary and archaeological evidence on the Dorian Invasion. The literary tradition points to two main streams of invasion: (1) an eastern, entering

the Peloponnesus by the Isthmus; (2) a western, crossing the narrow mouth of the Corinthian Gulf to Rhion in Achaea. A study of the archaeological data may be based on the certain premise that the small objects found in the British excavations at Sparta and dated in the tenth and ninth centuries B.C. are Dorian. The discovery of similar objects—geometric horses and birds, "spectacle" spirals, etc.—at Dodona, Thermon, Olympia, and Leucas confirms the tradition of the western invasion. Similar finds in Thessaly, at Elatea, at Mount Ptous, at Athens, at Mycenae, and at Argos, indicate the route of the eastern invaders. Recent discoveries at Lake Ostrovo near Monastir, and at Kalindoia (modern Chauchitza) include objects of the same style. A sword of "antenna" type found at Kalindoia suggests that the Dorian culture is a branch of one which had a wide extent in Central and Southern Europe; and similar inferences may be drawn from discoveries made by Professor Ernest Gardner at Aivasil on Lake Langaza, south of Lake Doiran. "The origin of Dorian culture must be sought farther north than Epirus or Thessaly, or even farther north than Macedonia." It reached Macedonia through the Vardar valley. Hallstatt belongs to the same cultural group as the Dorians. The eastern stream of invasion passed through Athens, and in spite of Athenian tradition, there was probably a Dorian settlement in the Ceramicus, responsible for the special development of the geometric style which is seen in the Dipylon vases. Eastern and western invasions converged upon Sparta. The lack of artistic skill in the Dorians is due to their nomadic condition. After they were established at Sparta they developed a considerable art. A fine example of pure Dorian art is the frieze of the sixth century temple at Prinias in Crete. The recent excavations at Mycenae have proved that it was the Dorians who overthrew the Mycenaean civilization. The great walls of Mycenae were built 1400-1200 B.C. under the threat of a northern attack which ultimately proved successful. (*Ant. J. I*, 1921, pp. 190-218; 3 figs.)

Arrow-heads from Marathon.—E. J. FORSDYKE discusses arrow-heads from the battle-field of Marathon (*Proc. Soc. Ant. XXXII*, 1919-1920, pp. 146-157; 9 figs.). Many of the small bronze arrow-heads said to have been found on this site are of common Greek types. Of more special interest are two classes of alien origin. (1) The first comprises a series of iron arrow-heads with tangs. Sections through these heads vary from a quadrangular to a flat form, and the transition between the two is seen in points of which two opposite angles have been bevelled off. The square bolt is found in Cyprus, the flat in various Asiatic sites, and it is evident that these forms are not Greek. The intermediate forms find their nearest analogies in arrow-heads of modern date from the Far East. Hence it is clear that the iron arrow-heads from Marathon are oriental. (2) In a collection at Karlsruhe, said on uncertain authority to be from Marathon, is a large bronze arrow-head with tang and barbs. Similar heads are found in the British Museum. The evidence of Cretan coins shows that this was the form of arrow-head used by the famous Cretan bowmen.

Rhodian Demes.—F. HILLER VON GAERTRINGEN adds to and corrects his previous publications on the demes of Lindos, Camiros and Ialysos. (*Ath. Mit.* XLII, 1917, pp. 171-183.)

Stymphalus.—F. HILLER VON GAERTRINGEN publishes with a brief description some photographs and sketches (a stone throne and an exedra carved in the rock) made by the late H. Lattermann for his study of Stymphalus. He adds

notes on *I.G. V.* 2, 351 and the victory of Philip V at Apelaurion. (*Ath. Mitt.* XL, 1915, pp. 71-90; 2 pls.; 5 figs.)

Cyriacus in Greece.—P. WOLTERS offers new identifications of cities in Messenia visited by Cyriacus in 1447-48; changes the assignment of several inscriptions in the *Corpus*, and proves that what Cyriacus believed to be Mycenae was really Katsingri, 6 km. northeast of Nauplia. On pp. 106-110, G. KARO describes this citadel and gives a plan and a photograph of its probably fourth-century wall. (*Ath. Mitt.* XL, 1915, pp. 91-105; 2 figs.)

ITALY

ARCHITECTURE

The Villa of Horace at Tivoli.—The evidence of Horace on the situation of his villa at Tivoli is discussed by G. H. HALLAM, who concludes that the traditional site at the Monastery of S. Antonio is probably the true one. (*Atti e Memorie della Società Tiburtina di Storia e d'Arte*, I, 1921, pp. 3-20; fig.) T. ASHBY describes the actual remains of the Augustan villa incorporated in the structure of the monastery. (*Ibid.* pp. 21-29; 2 figs.)

The Villa of Domitian.—G. LUGLI gives the third installment of his discussion of the Villa of Domitian in the Alban Hills. He takes up a number of scattered structures, usually pre- or post-Flavian, such as roads, a cryptoporticus, cisterns, nymphaea, wharves, a lighthouse, etc. (*B. Com. Rom.* XLVII, 1919, p. 153-205, 3 pls.)

The Underground Basilica.—F. CUMONT upholds his hypothesis in regard to the original purpose of the subterranean basilica near the Porta Maggiore, Rome. That the place served as a meeting place for a sect of neo-Pythagoreans is indicated not only by its general form and arrangement, but especially by the most plausible interpretation of the subjects of the stucco decorations, which contain so many references to after-life, important in Pythagorean doctrines. (*Rass. d'Arte*, VIII, 1921, pp. 37-44; 11 figs.)

Jewish Catacombs in Rome.—FRANZ CUMONT, reviewing the substance of a number of recent publications on Jewish cemeteries in Rome, expresses regret that many of these monuments have been destroyed, and points out the need of a collection of Jewish inscriptions. (*Syria*, II, 1921, p. 145-148.)

The Aesthetics of the Ancient City.—G. CALZA shows that for obtaining an understanding of the Roman attitude toward city planning Ostia offers better material than either Pompeii or Rome. For at Ostia we have all the features of an ancient city, animated by the same life as that of Rome in its period of great building renaissance. At Ostia we see how the Roman laid out his city in a clear, but not too symmetrical plan, how he had an unconscious feeling for a relationship between buildings adapted to various purposes. (*Rass. d'Arte*, VIII, 1921, pp. 261-264; 3 figs.)

SCULPTURE

Archaic Bronzes from Brolio.—L. PERNIER describes a series of bronzes which were found at Brolio, between Arezzo and Cortona, on the site of an ancient lake, and which have passed into the Museo Topografico dell'Etruria and the collection of Signora Enrichetta of Ancona. The most important are four archaic statuettes, one of which represents a goddess holding two spears,

while the other three are helmeted warriors brandishing spears. The first figure, whose rigid frontality is like that of the Artemis dedicated by Nicandra at Delos, shows some decorative details imitative of Cretan ornament. The three warriors are of Cretan type, recalling those who appear on the conical steatite vase from Hagia Triada. The goddess is Dictinna; the warriors are her brothers the Curetes; and the four figures probably served as supports of a throne of Rhea. This series of bronzes, then, belongs to a deposit of objects sacred to the Great Mother, and has analogies in finds of ex-votos made at Prinia, at Phaestus, and at the sanctuary of Dictaeon Zeus at Palaikastro in Crete. Among the votive objects of the Brolio find are a horse, three stags, two hares, the figure of a warrior in full armor, in the attitude of a *promachos*, and two female figures which are crude in workmanship, but are curiously ornamented with incised patterns on the dress, suggesting the scale pattern which occurs often in Egyptian, Cretan, and oriental art. (*Dealo*, II, 1922, pp. 485-498; 15 figs.)

Recent Restorations.—LUCIO MARIANI describes three recently restored statues in the Antiquarium (*B. Com. Rom.* XLVII, 1919, p. 139-152; 2 pls.). One, an athlete with an oil flask (Roman, going back to a fifth-century type), had been erroneously restored as a gladiator in the seventeenth century. Another is a youthful Athena of the type that has been ascribed to Timotheus. The third is the torso of a mature woman with very rich draperies, the fragments of which were found in the Cimitero Ostiense near S. Paolo. It is, perhaps, to be dated in imperial times.

Numa in the House of the Vestals.—The male statue found by Lanciani in 1883 among the statues of the Vestal Virgins and by him identified as a portrait of Vettius Agorius Praetextatus is claimed for Numa by Carlo Anti (*B. Com. Rom.* XLVII, 1919, pp. 211-224.). It is of the middle of the second century A.D., the work of a second rate sculptor who used an ideal Greek archaic head as model.

A Roman Portrait Head in Budapest.—A. HEKLER publishes the portrait head of a woman in the museum at Budapest. It is Roman, and came from the Palazzo Brancacci. It is larger than life size and, perhaps, represents some member of the Claudian house. (*Jh. Oest. Arch. I.* XIX-XX, 1919, pp. 242-246; 2 pls.; 2 figs.)

A Relief from Lecce.—A. HEKLER publishes part of a relief from Lecce, 0.47 m. high and 0.67 m. long, now in the museum at Budapest. There are four figures, two mounted and two afoot, engaged in combat. One pair are clearly Gauls, the others men of Southern Italy. The relief dates from the end of the third century B.C. and was part of the frieze of a large tomb. (*Jh. Oest. Arch. I.* XVIII, 1915, pp. 94-97; pl.; fig.)

Scene from the Lusus Iuvenalis.—R. EGGER calls attention to a relief from Virunum in the museum at Klagenfurt and shows that it represents a scene from the *lusus iuvenalis*. (*Jh. Oest. Arch. I.* XVIII, 1915, pp. 115-129.)

The Cult of the Lares.—V. SKRABAR discusses various reliefs found at Poetovio (Pettau) which have to do with the cult of the Lares. (*Jh. Oest. Arch. I.* XIX-XX, 1919, Beiblatt, cols. 279-294; 8 figs.)

The Nutrices Augustae.—K. WIGAND describes the monuments and fragments known as the "Nutrices Augustae" found in the vicinity of Pettau. They date from the second and third centuries A.D. The reliefs fall into two

groups: 1, in which the Nutrix is nursing a child while another woman holds out a child to her; and 2, a cult scene in which offerings are brought to the Nutrix. The worship of the Nutrices was a local cult. They had a temple at Pettau. (*Jh. Oest. Arch. I. XVIII*, 1915, Beiblatt, cols. 189-218; 22 figs.)

The "Bed of Polyclitus."—C. HUELSEN shows that there is in the Palazzo Mattei a modern copy in marble of the relief known as the "Bed of Polyclitus." It represents a male figure in bed, a nude female figure sitting on the bed, and a small female figure crouching on the floor. The original was once in the possession of Ghiberti, but has been lost since about 1630. Another modern copy in marble was formerly in the Palazzo Corsetti. Two bronze copies, both lost, are also known. The relief had considerable fame in Renaissance times. (*Jh. Oest. Arch. I. XVIII*, 1915, pp. 130-137; fig.)

A Pseudo-Egyptian Relief.—JEAN COLIN publishes a relief in Florence representing a procession in honor of Isis ('une procession isiaque'). The relief is carved on a block of hard granite, which once formed the base of a column. The Roman sculptor evidently tried to imitate the Egyptian style. The relief, which was already in Florence before 1825, evidently came from the temple of Isis and Serapis in the Campus Martius at Rome. Two similar vases are in the courtyard of the Museo Capitolino. Part of the base in Florence has been cut away, so that it is no longer round. The six persons represented are all priests or worshippers of Isis, as were, no doubt, the two represented on the missing part of the base. (*Mél. Arch. Hist. XXXVIII*, 1920, pp. 279-283; 3 pls.)

PAINTING

Pompeian Wall Paintings of the Third Style.—W. KLEIN continues his study of Pompeian wall paintings with a discussion of the characteristics of two artists who worked at the beginning of the Third Style. The painting of Daedalus-Icarus published in colors in Baumeister's *Denkmäler*, pl. 22 and the Pegasus painting are by the same artist, as is a third painting in the same room, now almost destroyed, which represented Actaeon and Diana. A second artist painted another scene representing Daedalus and Icarus, as well as a Perseus and Andromeda and a Heracles and Hesione. Other paintings show the influence of these masters. (*Jh. Oest. Arch. I. XIX-XX*, 1919, pp. 268-295; 12 figs.; cf. *Ibid.* XV, 1912, pp. 143 ff.)

Roman Wall Painting in the Second Century A.D.—H. KRIEGER (*Röm. Mitt.* XXXIV, 1919, pp. 24-52; 3 pls.) posits a fifth style of Roman wall painting harking back to the second in its simpler naturalistic use of architectural motives but improving on it by the better handling of perspective. This is followed by a sixth style in which the architecture becomes more complicated again and which adopts and combines motives from all styles.

INSCRIPTIONS

An Imperial Rescript.—O. CUNTZ publishes an imperial rescript of Septimius Severus and Caracalla dated October 14 of the year 205. It has to do with the *centonarii* of Solva. It was found at Solva, near Leipnitz, in Steiermark in 1915 and is now in the museum at Graz. (*Jh. Oest. Arch. I. XVIII*, 1915, pp. 98-114; fig.)

An Honorary Decree.—R. EGGER discusses and restores a fragmentary Latin inscription found at Salona in 1911. It was a decree in honor of a certain C. Iulius [Alex]ianus who held various important offices. It dates from about 217 A.D. (*Jh. Oest. Arch. I. XIX-XX*, 1919, Beiblatt, cols. 293-322.)

D. Simonius Julianus.—D. Simonius Julianus, who was *praef. urb.* A.D. 239, probably kept his office for five or six years. According to J. COLIN the lacuna in the inscription on the measure in Florence in which his name occurs probably contained the name of Philippus II. (*B. Com. Rom. XLVII*, 1919, pp. 3-10.)

Valentinism and Gaia.—In an article on Valentinus and Valentinism (*R. Arch.*, fifth series, XIV, 1921, pp. 131-145), SALOMON REINACH explains the last line of the epitaph of the Roman Valentinian woman Γαῖα, ἡ θαυμάζεις νέκυνος γένος; ἡ πεφύθησεν; (Aigrain, *manuel d'épigraphie chrétienne*, No. 81) as a reference to a figure of Gaia rising from the earth with a gesture of surprise (cf. Reinach, *Rép. Rel.* III, 130, 187), a gesture which is itself a survival of the gesture of supplication such as is seen in representations of the battle of the gods and giants.

COINS

Mints of Vespasian.—H. MATTINGLY continues with an exhaustive article on the mints of Vespasian his study of the coinage of the civil wars of 68-69 A.D. (see *Num. Chron.* for 1914). The article is too long for brief summary, but is of the utmost importance for students of Roman coinage. (*Num. Chron.* 1921, pp. 187-225; 2 pls.)

Third-Century Mints and Marks.—Mints and marks of the third century are at last thoroughly and systematically assembled and treated by PERCY H. WEBB. (*Num. Chron.* 1921, pp. 226-293.)

Apollo Vejovis.—G. PIERFITE discusses a type on the obverse of a denarius of the gens Cassia (Babelon, *Monnaies de la République romaine*, Cassia, 7). The head which Babelon interprets as that of Bonus Eventus is more probably that of Apollo Vejovis. (*B. Soc. Arch. Midi*, 44, 1915, pp. 57-61; pl.)

GENERAL AND MISCELLANEOUS

The Early Commerce of Latium.—Latin commerce from the Iron Age to the sixth century B.C. is the subject of a recent dissertation by LOUISE E. W. ADAMS. From literary tradition and archaeological evidence it is inferred that foreign traders, of whom the first were Phoenicians, visited the west coast of Italy in the early Iron Age, and that at this period trade in salt, iron, and bronze was carried on between different parts of Italy. Probably metals were transmitted to the Latins through Rome from Etruria. In general Latium was a backward district in comparison with the Etruscan region to the north and the Hellenized region to the south. In the seventh century the Etruscans controlled a trade route to the south, guarded by the fortress of Praeneste. Some Phoenician and Greek manufactures were imported into Latium. In the sixth century, which was marked by Greek predominance in the culture of Etruria, the Etruscans took possession of Rome and tried to convert it into a commercial centre. After the expulsion of the Etruscans the Romans were too much embarrassed by wars to take full advantage of their economic opportunities. The terms of

their early treaty with Carthage (Polybius, III, 22, 4), which seems to have been made in 509 B.C., show the indifference of the Latins to commerce, but also indicate that the Carthaginians foresaw, and sought to forestall the possible growth of Rome as a commercial power. [*A Study in the Commerce of Latium from the Early Iron Age through the Sixth Century B.C.*, Smith College Classical Studies, No. 2; Northampton, Mass., 1921, Smith College; 84 pp.; 8vo. \$0.75.]

Etruscan Ships.—FRIEDERICH BEHN (*Röm. Mitt.* XXXIV, 1919, pp. 1-16) adduces evidence to prove that the Etruscan ships were closely related to the Phoenician and Minoan and radically different from the Greek.

The Pomerium of Rome.—Numismatic evidence for the enlarging of the pomerium is adduced by LODOVICO LAFFRANCHI (*B. Com. Rom.* XLVII, 1919, pp. 16-44; pl.) for the following: Augustus, 27 and 7 B.C.; Trajan, 107 A.D.; Commodus, 189-190 A.D. The type of coin commemorating events of this sort is very similar to that celebrating the founding of a colony, viz. a pontifex plowing with a bull and a cow. The *ius proferendo pomerii* was conferred on the emperor at his accession. The rite was intimately connected with the closing of the temple of Janus and the taking of the census. It did not necessarily refer to a particular conquest, but to all the annexations since the last enlarging of the pomerium. For Augustus, Trajan and Commodus monuments were erected in honor of the event.

The Costume of the Oscan Woman.—MARGARETE LÁNG discusses the costume of the Oscan woman in the light of tomb frescoes and vase paintings. (*Jh. Oest. Arch. I.* XVIII, 1913, Beiblatt, cols. 233-252; 4 figs.)

Attis on the Sainte Chapelle Cameo.—E. TÄUBLER (*Röm. Mitt.* XXXIV, 1919, pp. 74-81) interprets the crouching figure adjacent to Livia-Cybele on the Sainte Chapelle cameo as Attis. He probably symbolizes grief over the fate of Germanicus. The cameo may have been cut under Claudius, who introduced Attis into the official Roman cult.

Caesius Bassus.—M. MAYER (*Röm. Mitt.* XXXIV, 1919, pp. 107-114) recognizes Caesius Bassus in the relief on a silver plate found in Russia, which was published by Pharmakowsky (*Arch. Anz.* 1908, p. 155 ff.).

Notes on Two Roman Names.—E. GROAG (*Jh. Oest. Arch. I.* XVIII, 1915, Beiblatt, cols. 265-280) traces the family connections of Q. Pompeius Sosius Priscus, consul 149, and of Bassaeus Astur. *Ibid.* XIX-XX, 1919, cols. 323-328, he discusses the family of Ducenius Geminus.

The Uniform of the Roman Soldier.—P. VON BIEŃKOWSKI discusses the uniform and armor of the Roman soldier in late imperial times. (*Jh. Oest. Arch. I.* XIX-XX, 1919, Beiblatt, cols. 261-280; 9 figs.)

The Trade in Lead in Roman Times.—MAURICE BESNIER completes his treatise on the trade in lead in Roman times. He describes and discusses ingots found in Northern Africa and in Italy. Those found in the sea off Mahdia, since the ship in which they were came from Athens, may perhaps be of Attic origin, though they resemble Spanish ingots. The same doubt affects one or two ingots found in Italy. As the Roman Empire decayed, Italy ceased to import lead from the British mines, but merely used over again the metal which had been imported in earlier times. (*R. Arch.*, fifth series, XIV, 1921, pp. 98-130; 7 figs.; recapitulatory chart; epigraphic index. Cf. *Ibid.* XII, 1920, pp. 211-244; *A.J.A.* XXV, 1921, p. 415.)

SPAIN

A Stone Palette.—GEORGE BONSOR publishes and discusses a stone palette with a bronze case, found in a tomb at La Cañada Honda, in the province of Seville, Spain. Other similar palettes have been found. They must have formed part of the toilette apparatus of Roman ladies. The case of this specimen is adorned with a relief representing a nude woman seated between two Erotes. (*R. Arch.*, fifth series, VIII, 1918, pp. 166-169; fig.)

FRANCE

Some Archaeological Aspects of Mediterranean Languedoc.—ANDRÉ JOUIN has published a description and discussion of some archaeological aspects of southern or, as he prefers to call it, Mediterranean Languedoc. He describes the region, its climate, vegetation, and geological character. In ancient times a sea route passed through the lagoons of the coast, now deserted by vessels and, in part, filled with silt. Other trade routes were by land. The caves of the lower cañon of the Gardon—especially that of La Baume—are described. Here are remains of palaeolithic and neolithic occupation. Especially towards the end of the neolithic period, objects from the eastern Mediterranean were imported. In the hypogaea of the mountain of Cordes and of Castellet, not far from Arles, resemblances to Mycenaean tombs and to monuments of the Balearic Islands, as well as imported objects, point to foreign settlement in the Bronze Age, if not earlier. At Montlaure, about five kilometers north of Narbonne, are traces of ancient dwellings and remains of pottery. Much of this last is of local manufacture, but much is imported ware from Greece and Italy. The earliest imported ware is Attic black-figured pottery of the sixth century B.C., including a fine Attic-Corinthian amphora. Fragments of Attic red-figured ware are more numerous, though the end of the sixth and the beginning of the fifth centuries are not represented. Similar conditions occur at Empuries (Emporion). At Montlaure was evidently a small Greek settlement surrounded by natives. Such early Greek settlements and intercourse with Greek traders may explain the ease with which Roman civilization was afterwards accepted. Maguelone, Villeneuve-lès-Maguelone, the stations of the pilgrimage route to Sant' Iago de Compostela, Saint-Guilhem-le-Désert, Saint-Martin-de-Londres, and Aigues Mortes, are discussed. Maguelone, a protected island, dominated the neighboring region in the early Christian times. Devastated by Charles Martel in 737, it was not again important until the eleventh century. Little remains there now except the dismantled cathedral and the bishop's palace. The cathedral was built at different times, in the eleventh century, the first half of the twelfth century, and the second half of the twelfth century, and shows the characteristics of those dates. The sculptured lintel of the principal door, dated 1178, is related to the sculpture of St. Trophime at Arles. Villeneuve belongs chiefly to the twelfth century. The chief remaining feature is the much disfigured church of Saint Étienne. Of the four chief routes to Sant' Iago de Compostela, one followed the ancient Via Domitiana from Arles to Narbonne. Saint-Guilhem-le-Désert is some 37 kilometers from this route, to the northward. The Guilhem who sanctified this place was a count of Toulouse in Charlemagne's time. The legend of his life and deeds was elaborated in the twelfth century. The monas-

tery and the bridge by which it was (and is) approached were built in the eleventh century. The church and ramparts of Saint-Martin-de-Londres belong to the end of the eleventh century or to the twelfth. Aigues Mortes was an important port for three hundred years from the middle of the thirteenth century. Its fortifications are described. They belong to the thirteenth century, at least for the most part, and are almost entirely preserved. (*R. Arch.*, fifth series, XII, 1920, pp. 269-309; XIII, 1921, pp. 37-78.)

The So-Called Ancient Tomb of Neuvy-Pailloux.—ADRIEN BLANCHET discusses the remains of a structure at Neuvy-Pailloux, between Thizay and Ville-saison. The structure was discovered in 1844 and was regarded as a tomb of a time earlier than the Roman conquest. The objects found in it are clearly Gallo-Roman. The building itself was not a tomb, but, in view of the number of amphorae found in it, a wine-shop or, more probably, a pavilion in which wine was stored and, perhaps, sometimes sold. A tripod with movable legs, found in the building, may have been a contrivance to hold up the mouth of an amphora, so that its contents could be poured out merely by raising the lower end of the vessel. (*R. Arch.*, fifth series, XIV, 1921, pp. 81-97; 2 figs.)

A Gallic Terra-cotta.—A terra-cotta statuette of a warrior in the Musée Saint-Raymond at Toulouse is published by C. LECRIVAIN. The peculiar tunic, as well as the form of the armor, shows that the subject is a Gallic soldier. (*B. Soc. Arch. Midi*, 44, 1915, pp. 61-63; 2 figs.)

Fortifications of Toulouse.—J. CHALANDE, continuing his studies of the ancient fortifications of Toulouse, describes the remains of Roman and mediaeval date between the Porte Saint-Michel and the Porte Montgaillard. (*B. Soc. Arch. Midi*, 43, 1914, pp. 217-230; plan.)

Vercingetorix.—G. PIERFITTE reviews the evidence on numismatic portraits of Vercingetorix. (*B. Soc. Arch. Midi*, 44, 1915, pp. 47-56; pl.)

Roman Toulouse.—M. DE SANTI sketches the history and topography of Toulouse in Roman times (*B. Soc. Arch. Midi*, 42, 1913, pp. 65-69). J. CHALANDE describes the Roman and mediaeval fortifications of the Quartier Saint-Michel of the city (*Ibid.* pp. 76-84; fig.).

SWITZERLAND

Pre-Christian Cults of Geneva.—W. DEONNA, in a thoroughly documented and indexed monograph which has the proportions of a book rather than of an article, discusses the local cults of Geneva from the Palaeolithic Age to the Christian era. The study is based in great part on objects in the Musée d'Art et d'Histoire at Geneva. It includes a description of the early objects of personal adornment found in this region, and of the evidence for cults of stones, of lakes and streams, of trees, of animals, of the key, the saw-toothed representation of the solar disc, and of aniconic symbols; of anthropomorphic types, and certain pre-Roman divinities of Geneva; and of the several Roman gods who were worshipped there. A final chapter is devoted to the survival of certain Pagan influences and beliefs in the Christian period. (*B. Inst. Gen.* XLII, 1917, pp. 209-526; 104 figs.)

Rhoeto-Romanic Villages.—B. REBER describes the remains of two ancient villages discovered by Abbé Jolivet on the summit of Reculet in the Jura. The extant walls are of limestone blocks, not squared, but carefully fitted without

mortar. Structures are generally rectangular in plan, but each village contained a circular building, the use of which has not been ascertained. The villages are to be attributed to the Rhoeto-Romanic population which occupied this region before the invasions of the Alemanni in the third and fourth centuries A.D. (*B. Gen.* XLI, 1914, pp. 83-96; 3 figs.)

AUSTRIA

The Costume of the Pannonian Woman.—MARGARETE LÄNG discusses the costume of the Pannonian woman as shown on the monuments. (*Jh. Oest. Arch. I.* XIX-XX, 1919, Beiblatt, cols. 207-260; 21 figs.)

SWEDEN

Firestones of the Iron Age.—HANNA RYDH describes and classifies firestones of the Iron Age. Her investigations have shown that primitive unshaped stones remained in use long after the invention of an artificially shaped form. The oldest finds of such primitive stones have been made in East Prussia, where they were associated with objects of the late La Tène period. Stones found in Sweden can be dated in the first and second centuries A.D., and a fine oval stone was discovered at Enebö in Norway with a coin of Theodosius II. It appears that the period in which such stones were in use extends from the first century A.D. to the fifth. Many have been found in Skåne. (*Fornvännen*, XII, 1917, pp. 172-190; 20 figs., map.)

The Star-form in Germanic Ornament.—The star motive in the ornamentation of Germanic metal work of the third and fourth centuries, especially as illustrated by examples from Sweden, is discussed by NILS ÅBERG. (*Antikvarisk Tidskrift för Sverige*, XXI, 3, pp. 1-51; 70 figs.)

Weights of the Viking Period.—F. DE BRUN (*Fornvännen*, XII, 1917, pp. 56-66), opposing the theory of T. J. ARNE that the system of weights in Sweden during the Viking period was based on the Sassanid drachm (4.25 grammes), maintains that four systems of weights were in use (8.7, 8.4, 8.15, 7.85 grammes).

Metal Ornaments from Gotland.—Metal objects discovered in graves of 550-800 A.D. in Gotland are the subject of a descriptive article by BIRGER NERMAN. They include fibulae of various forms, and other articles of personal ornament. (*Antikvarisk Tidskrift för Sverige*, XXII, 4, pp. 1-102; 30 pls.; 16 figs.)

GREAT BRITAIN AND IRELAND

Flint Daggers in England.—R. A. SMITH discusses the chronology of flint daggers discovered in England (*Proc. Soc. Ant.* XXXII, 1919-1920, pp. 6-21; 11 figs.). They are usually found in round barrows, and the English specimens may, therefore, be attributed to the post-neolithic period. Often they are associated with pottery beakers. Both pottery and daggers may have been imported into England by an invading people at the beginning of the Bronze Age.

Bronze Bracelets from Cornwall.—Two bronze bracelets belonging to the Royal Institution of Cornwall, and presumably found in that region, are described by R. A. SMITH (*Proc. Soc. Ant.* XXXII, 1919-1920, pp. 97-100; fig.) They are moulded and cast; but ornament was also applied with a graving tool, producing rows of triangular indentations. No exact analogy is known but the

bracelets have some resemblance to one found in Jutland and assigned by Montelius to the eleventh century B.C.

Irish Gold Crescents.—R. A. SMITH discusses the significance of the gold crescents of early workmanship found in Ireland. They are probably to be associated with a cult of the moon, perhaps introduced into Ireland from Spain. (*Ant. J. I*, 1921, pp. 131-139; 5 figs.)

NORTHERN AFRICA

VOLUBILIS.—A Rider.—L. CHATELAIN publishes a bronze figure of a youth, found recently in the excavations at Volubilis. It was in several pieces but has been put together to form a complete whole. Certain details of the work make the hypothesis of its being a Greek original seem doubtful, but its Greek inspiration is perfectly evident, and the style is typical of the influence of Polyclitus or his school. The figure is unique in that it represents a type unknown today in any other example. (*Gaz. B. A. III*, 1921, pp. 1-6; pl.; 5 figs.)

EARLY CHRISTIAN, BYZANTINE AND MEDIAEVAL ART

GENERAL AND MISCELLANEOUS

Early Christian Metal Work.—A catalogue recently published by the Römisch-Germanisches Central-Museum at Mainz constitutes a handbook of metal work in the Early Christian period, since the objects it describes are the most important known metal objects of this date, represented by reproductions in the Mainz collection. A brief historical introduction is followed by descriptions of objects, classified as treasures, caskets and reliquaries, kettles, chalices, censers, lamps, candelabra, plates, pitchers, crosses, book-covers, ampullae, spoons, amulets, sarcophagi, doors and cupboards. [W. F. VOLBACH, *Metallarbeiten des christlichen Kultes in der Spätantike und im frühen Mittelalter*. Mainz, 1921, Wilckens; 95 pp.; 8 pls.; 6 figs.; Svo.; 5.50 M.]

Late Antique and Early Mediaeval Ivories.—A catalogue of the principal examples of ivory work of the late antique and early mediaeval periods, represented by reproductions in the Römisch-Germanisches Central-Museum at Mainz, has been published by that museum. The descriptions of objects are accompanied by bibliographical references, and are arranged primarily under chronological headings, and secondarily under headings representing the several classes of works described. There is also a general bibliography of the subject. [W. F. VOLBACH, *Elfenbeinarbeiten der Spätantike und des frühen Mittelalters*. Kataloge des röm.-german. Central-Museums, No. 7. Mainz, 1916, L. Wilckens; 114 pp., 12 pls., 2 figs.; Svo.; 6 M.]

The Cult of Poor Souls.—P. M. HALM discusses a cult important in late mediaeval times, which was based in large measure upon narrations given by the thirteenth century Caesarius von Heisterbach, though these derive in some cases from still earlier sources. The point of the stories reveals the miraculous benefits derived by absent or deceased persons from the prayers and offerings of the living. A whole cycle of illustrations—reliefs, paintings, and drawings—may be traced to this cult. Some are almost literal transcriptions of the stories told by the religious writers, others are more symbolical and complicated. (*Münch. Jb. XII*, 1921, pp. 1-24; 15 figs.)

The Sun and the Moon in Crucifixions.—LOUIS HAUTECOEUR discusses the reasons for the presence of the sun and the moon in representations of the crucifixion, where they appear as early as the sixth century, at first in Syria. They had been associated with pagan deities—Isis, Serapis, Baal, Saturn, Mithra, Jupiter of Heliopolis and other solar and chthonic deities. This presence in crucifixions is in part due to syncretism, in part, no doubt, to artistic tradition and popular habit. (*R. Arch.*, fifth series, XIV, 1921, pp. 13-32.)

Romanesque Capitals in Nazareth.—P. EGIDI discusses the set of five almost perfectly preserved capitals found in 1908 on the grounds of the convent of the Annunciation at Nazareth. The writer conjectures that the capitals were intended to be used on a minor portal of the church which had only been commenced when the attack upon the holy city in 1187 drove the Christians out of Nazareth. While the style of the work shows many points of similarity with the sculpture of Autun and Vézelay, it cannot be placed in that school. It was done by French artists, apparently under various oriental influences. (*Dadalo*, I, 1921, pp. 761-776; 15 figs.)

A Christian Mosaic from Palestine.—O. M. DALTON discusses a detail of a mosaic pavement of the sixth century discovered at Umm Jerar near Gaza in 1917. It is a representation of a bird with a radiate nimbus, seated upon a nest in an object of curious shape. The bird is the phoenix, which is not seldom represented in early Christian art; while the object on which the nest rests is a Persian fire altar. The mosaic shows other evidence of Persian influence. (*Proc. Soc. Ant. XXXII*, 1919-1920, pp. 47-55; 2 figs.)

A Sculptured Stone from Mesopotamia.—O. M. DALTON discusses a marble slab discovered at Miafarkin (Tigranocerta) in Northern Mesopotamia. It has reliefs on both sides, and it may have been part of an iconostasis, or may have filled the lower part of a light in a church window. The style of the reliefs dates them in the period from the ninth to the thirteenth century. Of special interest is the representation of a double-headed eagle on one side of the stone. This symbol of power seems to have been introduced into European heraldry in imitation of the Seljuk Turks. But it occurs in the Orient in Hittite art. On the other side of the slab a fountain is twice represented; from it rises a stem crowned by a pine cone. The pine cone, a symbol of fertility in the cult of Mithra, passed into Christian symbolism in association with the Water of Life. (*Proc. Soc. Ant. XXXII*, 1919-1920, pp. 55-63; 3 figs.)

A Byzantine Church near Megalopolis.—The church of the Holy Apostles at Leondari near Megalopolis is described by A. C. ORLANDOS (*R. Ét. Gr. XXXIV*, 1921, pp. 163-176; 6 figs.). It is imitative of the Brontochion at Mistra, but some details indicate that it is of somewhat later date; and the pentagonal apse assigns it to the fourteenth century, which is the date of the earliest documentary evidence regarding it.

ITALY

Oderisi da Gubbio.—P. D'ANCONA takes as his point of departure for the study of Oderisi of Gubbio the passage in which Dante gives us a clue to the kind of work that artist did. Though heretofore we have known no certain work by Oderisi, what Dante says in comparing him with Francesco Bolognese leads the author to believe it possible to attribute to Oderisi a definite group of

thirteenth century Bolognese miniatures showing strong French influence. (*Dedalo*, II, 1921, pp. 89-100; 7 figs.)

The Altar of Sant' Ambrogio.—N. TARCHIANI (*Dedalo*, II, 1921, pp. 5-35; 5 pls.; 10 figs.) gives the result of his study of the much disputed altar of gold in Sant' Ambrogio at Milan. While superintending the removal of the altar during the war, the author was able to examine it under unusually favorable conditions. Besides a criticism of documentary material and a study of the technique and iconography of the work, he writes a full description of it and publishes complete and adequate photographic reproductions. The conclusion is that the original parts of the altar belong to the early decades of the ninth century; its Carolingian character is indicated by the technique and iconography and by the types of figures, which bear close similarity to those of such well-known Carolingian works as the Utrecht Psalter.

Byzantine Mosaics of Sicily.—B. PACE shows how Sicilian art of the twelfth century, conforming in general iconography and style to Byzantine canons, yet departs from the latter in one significant point. It is characterized by an original display of realism. This may be clearly seen by comparing the mosaic of the Entrance into Jerusalem in the Palatine chapel, Palermo, with the mosaic representation of the same subject in the church of Daphni. (*Rass. d'Arte*, VIII, 1921, pp. 181-184; 3 fig.)

The Art of Carnia.—G. FIOCCO writes on an exposition of art in remote Tolmezzo in the heart of the Friulian Alps. The work is peculiarly interesting because the isolation of the region has guarded the purity of its style through the centuries. The art is always pervaded by the quiet, peaceful spirit of the mountaineer, whose greatest joy through the long winter days was the employment of his knife in wood carving. Naturally, the houses have many ornamental carvings, but to the art historian the most interesting work is the carved altar pieces, headed by the fine productions of that well-known fifteenth century sculptor, Domenico da Tolmezzo. (*Dedalo*, I, 1921, pp. 669-689; 21 figs.)

Two Romanesque Statues.—E. NICODEMI publishes the statues of Adam and Eve which adorn the portal of the twelfth century cathedral of Lodi and have previously had but slight literary notice. Prototypes are the figures on the ciborium of Sant' Ambrogio in Milan, the two caryatides of Sant' Antonio in Piacenza, and, for the Adam, Byzantine crucifixions. But the figures possess an expressive force which characterizes all the sculpture from Wiligelmo to the Antelami, and they are not lacking in originality, particularly the Eve, that almost seems to be moving in the severe liturgical dance. (*Dedalo*, I, 1921, pp. 738-742; 3 figs.)

Primitives in the Vatican.—O. SIRÉN writes a supplement to his article in *L'Arte* of 1906 on the early paintings in the Vatican. A more recent and more thorough study of the collection leads the author to a revision of some of his previous attributions, and he also fills some former omissions. Further, this later study is, in parts, a correction of the catalogue of the collection compiled by Dr. P. d'Achiardi. (*L'Arte*, XXIX, 1921, pp. 24-28, 97-102; 16 figs.)

Barbaric Art of Nocera Umbra.—M. SALMI discusses the wealth of jewelry and other objects found in the barbarian necropolis of Nocera Umbra. (*Rass. d'Arte*, VIII, 1921, pp. 152-157; 6 figs.)

Lippo Memmi.—L. OZZOLA discusses Lippo Memmi in his collaboration with his father Memmo and with Simone Martini. Along with the work of Lippo

in the *Maestà* of the Palazzo Pubblico, San Gimignano, the hand of the father is to be recognized in the more primitive, Gothic figures of the right side. As to the work with Simone, the paramount example is the Uffizi Annunciation, signed by the two artists. Contrary to usual criticism, the two figures at the left, the Announcing Angel and S. Ansano, are given to Simone; the two at the right, the Virgin and S. Giulietta, because of their heavier treatment are, in execution at least, though not in design, given to Lippo. (*Rass. d'Arte*, VIII, 1921, pp. 117-121; 4 figs.)

Two Paintings by Taddeo Gaddi.—R. OFFNER publishes two paintings, a Madonna in the church of S. Lorenzo alle Rose near Florence, and a St. John the Evangelist in the Gentner collection, Worcester, Mass., which he attributes, on the basis of relationship to authentic paintings, to Taddeo Gaddi. The Madonna is to be dated about 1355, the St. John about 1340-50. (*L'Arte*, XXIV, 1921, pp. 116-123; 7 figs.)

Giotto's Last Judgment.—The Last Judgment of the Arena Chapel in Padua is the subject of a discussion by A. FORATTI (*Boll. Arte*, I, 1921, pp. 49-66; 15 figs.) in which it is shown how little is taken by Giotto from predecessors and how much of the composition is his own invention. It is the freest product of fourteenth century art.

Dante the Painter.—Taking as his point of departure Dante's description in *La Vita Nuova* of his own attempt at painting, H. COCHIN (*Gaz. B.-A.* IV, 1921, pp. 65-80; pl.; 5 figs.) discusses the high value which Dante put upon painters, his theory of painting, which comes out in the Divine Comedy, and the pictorial character of his poetry. Dante eulogizes naturalistic qualities in painting, and all through his poetry he betrays the spirit of a painter in his simple, vivid descriptions of scenes.

A Note on Purgatorio X, 55-63.—J. SHAPLEY uses Dante's description of one of the reliefs in Purgatory as the point of departure for a discussion of the relationship of illustration, particularly the illustration of Dante, to literature. The effects of the two arts upon the various senses constitute the main problem involved, though the problem of unity is also important in the translation of the literary into the pictorial. (*Art Bulletin*, IV, 1921, pp. 19-26; 5 figs.)

The Tomb of Pietro Alighieri.—L. COLETTI gives something of the history of Pietro Alighieri, elder son of Dante, a notable lawyer not unworthy his parentage, and discusses the sepulchral monument set up for him at Treviso, where he died. The monument, by the Venetian sculptor, Ziliberto fu Mauro Santo, has been dismembered and some parts have been lost; but its character can be surmised from the remaining parts and from the monument of the bishop Salomone Castellano, which Pietro's tomb simulated in large part, though the style of its sculpture is more realistic, less refined, and less Pisan than that of the bishop's. The parts of Pietro's tomb that remain are his own statue, the figures of two virtues that supported the baldacchino, and the coats of arms. They are in the chapter library at Treviso. (*Rass. d'Arte*, VIII, 1921, pp. 315-324; 6 figs.)

Wooden Sculpture.—C. GRADARA writes on the development of wooden sculpture in the Abruzzi. This region was active in the art from the thirteenth century on. Much of the work consists in furniture decoration, but from the fourteenth century through the seventeenth large figure compositions are

abundant. A group of Madonnas from various churches is here published. (*Rass. d'Arte*, VIII, 1921, pp. 270-274; 6 figs.)

Florentine Textiles.—G. SANGIORGI describes the changes in the style of figured textiles when, after the death of Manfredi, the industry was transferred from Sicily to Florence and neighboring towns. The oriental character of the designs was lost and the compositions used in Florentine painting were copied for more than two centuries. In many instances the paintings which inspired directly or indirectly certain textile designs may be recognized. (*Dedalo*, II, 1921, pp. 153-169; pl.; 17 figs.)

Feminine Costume of the Trecento.—From passages in contemporary literature and from paintings of the time, C. LA FERLA (*L'Arte*, XXIV, 1921, pp. 55-70; 21 figs.) studies costumes worn by women in the fourteenth century. Their elaborate design, their harmonious coloring, and their wealth of jeweled ornament, particularly as seen in Sienese examples, were no doubt due in no small degree to oriental influence.

A Picture of St. Ursula.—O. SIRÈN attributes to the North Italian painter, Guariento, a painting of St. Ursula with her maidens (property of Mr. F. Steinmayer, Lucerne), which is unusually attractive in color and design. (*Burl. Mag.* XXXIX, 1921, pp. 169-170; pl.)

Umbrian Primitives.—M. SALMI studies early Umbrian paintings as represented in collections at Perugia. (*L'Arte*, XXIV, 1921, pp. 155-171; 20 figs.)

Textile Designs in Italian Paintings.—I. ERRERA places side by side with paintings dating from the fourteenth to the end of the sixteenth century examples of extant textiles in which the same designs occur that are found in the draperies of figures in the paintings. Such a study throws light both upon the sources of influence in the paintings and upon the dates of the textiles, often showing that certain textile designs originated much earlier than has hitherto been supposed. (*Gaz. B.-A.* IV, 1921, pp. 143-158; 21 figs.)

A Reliquary Casket in Capodistria.—A. GNIRS describes a reliquary casket, 30 cm. long, 16 cm. wide and 11.5 cm. high, in Capodistria. It is of oak covered with carved plates of bone which were once gilded. On each of the long sides and on top are three panels, each containing a figure. A border of rosettes, or "stars," surrounds the whole and separates the panels. On one end two men appear fighting; and on the other are four heads in circles, all enclosed by the same border. The casket dates from the twelfth century. (*Jh. Oest. Arch.* I. XVIII, 1915, pp. 138-144; pl.; 4 figs.)

SPAIN AND PORTUGAL

Valencian Silversmith Work.—E. TORMO publishes two Valencian processional crosses, one in Játiva, the other in Onteniente. The latter is documentarily dated 1392-93 as the work of a Valencian silversmith, Pedro Capellades. The one in Játiva is so close to this in general style that it undoubtedly belongs to the same period, and it seems likely that its author was Pedro Bernés. Both crosses are richly decorated with relief and enameled paintings and are of great importance in portraying the character of Valencian silversmith work in the latter part of the fourteenth century. (*B. Soc. Esp.* XXVIII, 1921, pp. 193-204; 2 pls.)

Spanish Defensive Houses and Towers.—The character of the building activity of the fifteenth century in the region of La Montaña is described by L. T.

BÁLBAS (*Arquitectura*, No. 30, 1920, pp. 279-283; pl.; fig.). The most characteristic feature was the tower, built for defense, and the most complete extant example is in Espinosa de los Monteros (Burgos).

The Royal Monastery of Sigüenza.—R. DEL ARCO traces the long and complicated history of the great monastery of Sigüenza and describes its architecture

and the monuments preserved in it. The monastery was founded in the late twelfth century and its construction covers a period from the twelfth century to the sixteenth century. It has been a veritable museum of sculpture and painting and still retains not a few examples of importance. (*B. Soc. Esp.* XXIX, 1921, pp. 26-63; 3 pls.; 3 figs.)

The Ruins of Ayllón.—P. ARTIGAS describes the ruins of the thirteenth century Romanesque church of Ayllón with its later additions. The church has a single nave, with rectangular choir, cylindrical apse, and square tower. Contrasting with its severe simplicity are the sumptuous sixteenth century chapels and tombs which it shelters. (*B. Soc. Esp.* XXVIII, 1921, pp. 205-215; 2 pls.)

The Monastery of Ermelo.—F. ALVES PEREIRA describes the Romanesque structure of the Monastery of Ermelo, which is situated thirteen kilometers from Arcos de Valdevez in Portugal. (*O Archeologo Português*, XXIII, 1918, pp. 138-155; 22 figs.)



FIGURE 4.—BUST OF SAINT PETER:
PROVIDENCE.

FRANCE

Romanesque Sculpture.—R. VAN MARLE publishes a number of twelfth century French sculptures in American collections, gives a brief study of the schools to which they belong, and makes comparisons between those schools. A statue of the king of Judah in the Metropolitan Museum is assigned to the school of Berry. The bust of St. Peter (Fig. 4) recently acquired by the Rhode Island School of Design belongs to the school of Burgundy, bearing especially close similarities to certain statues of the Sainte Croix church at La Charité-sur-Loire. A crowned and bearded head in the Fogg Art Museum, which has been attributed to the school of Poitou, must have been done by artists from the atelier which produced the ornamentation of the church of St. Pierre at Moissac. Two crowned figures, reliefs of the

Entry into Jerusalem and the Message to the Shepherds in Mrs. Gardner's collection originally made up part of the decoration of Notre Dame de la Coudre at Parthenay in Poitou. Finally, a wooden figure of Christ (from a Descent from the Cross) in the same collection may be attributed, by comparison with a similar figure in the Louvre, to the school of Auvergne. (*Art in America*, X, 1921, pp. 3-16; 10 figs.)

Frescoes at Albi.—The Abbé AURIOL describes some of the frescoes of the church of Saint-Cécile at Albi. (1) On the vault of the nave the Transfiguration is represented. This subject, never entirely neglected in the Middle Ages, was chosen with special frequency by artists of the fifteenth century, since it was in this period that the Feast of the Transfiguration was established by Pope Calixtus III, in commemoration of the defeat of Mahomet II at Belgrade. (2) In the chapel of Sainte Croix the appearance of Christ to the sleeping Constantine is depicted. The cross itself, which is lacking in this picture, is to be found in the ornamentation of the vault above, surrounded by angels and cherubs; and it is shown not in a simple form, but in imitation of the richly jewelled reliquary cross, containing a fragment of the True Cross, which was preserved in this church. (*B. Soc. Arch. Midi*, 43, 1914, pp. 179-185; pl.)

A Romanesque Church.—F. PASQUIER calls attention to the interest of the church of Saint-Pierre at Lavernose, a structure of the school of Poitou. Although considerably altered and disguised by restorations, the building deserves a place among historic monuments. (*B. Soc. Arch. Midi*, 43, 1914, pp. 202-205.)

A Relief of the Trinity.—A. COUZI describes a relief representing the Trinity in a niche at the entrance of the church of Villefranche-le-Lauraguais (Haute-Garonne). The emotion depicted on the face of God the Father shows that the date is the fifteenth century. This is not a conventional Gothic face, but recalls a local type. The relief was probably a votive offering. (*B. Soc. Arch. Midi*, 43, 1914, pp. 330-332; pl.)

A Pietà at Toulouse.—A. COUZI describes a Gothic Pietà of wood in the Nazareth oratory at Toulouse. (*B. Soc. Arch. Midi*, 44, 1915, pp. 156-159; pl.)

Horses in Romanesque Sculpture.—Horses and their harness as represented on the Romanesque capitals of the twelfth century in the Museum of Toulouse are discussed by J. DE LAHONDÈS. He shows that certain details are appropriate only to the period to which the capitals are attributed. (*B. Soc. Arch. Midi*, 43, 1914, pp. 303-306.)

The Church of Sain-Bel.—J. TRUCOU publishes three drawings by A. Cateiland, illustrating the small Romanesque church of Sain-Bel in the Rhone district. The church is threatened with destruction because of plans for a large modern church on the site. (*Bulletin Historique du Diocèse de Lyon*, 1922, pp. 30-33; 3 figs.)

A Sculptured Lintel.—A. COUZI describes the primitive reliefs on the lintel of the door of the church of Sainte-Marie, at Bagiry (Haute-Garonne). In the centre is a coat-of-arms, with the date 1498. At the right is represented the Crucifixion, with the Virgin and St. John. At the left is the figure of St. Peter, in chasuble and conical tiara, carrying an enormous key. (*B. Soc. Arch. Midi*, 42, 1913, pp. 146-147; fig.)

Romanesque Capitals at Toulouse.—A series of eight Romanesque capitals in one of the portals of Saint-Sernin at Toulouse has hitherto been interpreted

as representing (1) the Feast of Dives (2-8) the Seven Deadly Sins. The Abbé AURIOL maintains that all the capitals of this series illustrate episodes of the story of Lazarus and Dives. (*B. Soc. Arch. Midi*, 44, 1915, pp. 63-71; pl.)

Processional Cross.—W. L. HILDBURGH has published a description of an English bronze processional cross of the late fifteenth or early sixteenth century, a pair of mediaeval enamelled basins (gemellions), a candlestick with folding legs, shown by the arms enamelled on the supports to be of about 1310, two fragments of mediaeval Limoges enamel, a small copper image of the Virgin, possibly made at Limoges in the thirteenth century, and two bronze rood figures, one of which was probably made in or near Auvergne, about 1100, while the other is possibly German. (*Proc. Soc. Ant.* XXXII, 1919-1920, pp. 129-140; 3 figs.)

BELGIUM AND HOLLAND

Early Goldsmith Work.—In the first of his series of articles on the early thirteenth century goldsmiths of Oignies, near Namur, H. P. MITCHELL (*Burl. Mag.* XXXIX, 1921, pp. 157-169; 3 pls.) attributes to Hugo, on the basis of stylistic similarity to signed work, the upper part of a reliquary in the Victoria and Albert Museum. The foot of the reliquary is believed to be the work of the late thirteenth century Mosan school.

The Altarpiece of the Lamb by the Van Eycks and Talismanic Engraved Stones.—F. DE MÉLY explains some of the inscriptions on the altarpiece of the Lamb as magic words or abbreviations such as are found on engraved stones used as talismans. ADONAI=Lord; AGLA is made up of the initials of the Hebrew words *Atar Gibor Lailam Adonai*, and is found on many mediaeval objects. It served to ward off disease, fire, and enemies, and also to bring love. HONI, also written "huni" is Hebrew, signifying "Thanks (to God);" like AGLA it is of benefit to women in child birth. MELAPARO, on the border of the bodice of the Cumaean sibyl in the altarpiece, is a mis-spelled transliteration of *Ῥῖνα παρ' ὀρθαλμῶν*, *Iliad*, V, 291, a passage which was used as a talisman of victory. The mediaeval artists used many languages and also cryptic alphabets. Examples of these are given and their magic use is illustrated. The inscription on the altarpiece, which records the names of the painters and the dedicator, reads according to Napoleon de Pauw (*Bulletin de la Commission royale d'histoire de Belgique*, V, 1921).

*Pictor Hubertus e Eyck, major quo nemo repertus
Incepit pondus, quod Johannes in arte secundus
Suscepit fratri, Judoci Vijd prece freti
Versu sexta Maï vos collocat acta tueri.*

(*R. Arch.*, fifth series, XIV, 1921, pp. 33-48; 8 figs.)

Identification of some Figures in the Ghent Altarpiece.—P. POST presents evidence to prove that the recognition of Jan and Hubert van Eyck among the Just Judges of the Ghent altarpiece is groundless, and that, instead, the four first figures represent Philip the Good, John the Fearless, Philip the Bold, and Ludwig von Male, the four successive counts under whose rule Jodokus Vydt, the donor of the altarpiece, lived (*Jb. Preuss. Kunsts.* XLII, 1921, pp. 67-81; 7 figs.). Such an interpretation helps in the solution of some of the difficult problems connected with the altarpiece. For example, it destroys the evidence

for the usual belief that there was a great discrepancy in the ages of Hubert and Jan van Eyck; and, more important than this, it leads to the conclusion that Hubert was the author of the panel of the Just Judges, since his death in 1426 explains the omission of the chain of the Golden Fleece from the neck of Philip the Good. Jan, who began his work on the altarpiece in 1430, would have shown the chain, for the duke acquired it early in that year. This proof, that Hubert was the author of this wing, is a confirmation of the author's earlier conclusion based on the Turin Book of Hours (see *Jb. Preuss. Kunsts.* 1919, pp. 208 f.).

GERMANY

The St. George Choir of Bamberg Cathedral.—R. KÖMSTEDT studies the choir of St. George in the east end of the cathedral of Bamberg, showing how it was developed in the early years of the thirteenth century from two different ground plans. (*Münch. Jb.* XII, 1921, pp. 25-37; 9 figs.)

A Garment of Emperor Heinrich II.—R. BERLINER makes a detailed study of the remains of a garment now in the Bavarian National Museum, which have been, and justly, as the author concludes, looked upon as coming from a garment originally belonging to Emperor Heinrich II. This garment early came into the possession of the Bamberg cathedral, among the treasures of which it is listed in the invoice of 1127. At various times through the centuries, until the eighteenth, it underwent partial restorations; but some of the original work is still to be seen. Sassanian influence is observable in the embroidery; its style is like that of Byzantine stuffs of Persian style in the Macedonian period. (*Münch. Jb.* XII, 1921, pp. 45-60; 13 figs.)

An Augsburg Family of Painters.—K. FEUCHTMAYER, taking as his point of departure an altar wing in the Louvre representing the Adoration of the Magi, develops the history of the artistic activity of a late Gothic family of Augsburg named Apt. Ulrich Apt the Elder is shown to have been the master who in 1510 painted the Louvre Adoration, and to him may be assigned earlier and later works. He was best as a portrait painter, mirroring what he saw about him. He made but little advance upon the past; he summed up, rather, its peculiarities in his own creations. Paintings which may be attributed to his sons and other members of his studio have the same fundamental characteristics as do those of the elder Apt. (*Münch. Jb.* XI, 1921, pp. 30-61; 18 figs.)

Mediaeval Art in Colmar.—C. CHAMPION writes on the superb art collection of the Underlinden Museum (the thirteenth century convent) in Colmar. It comprises, among other things, much of the best work of mediaeval Rhenish art from Isenmann to Schongauer and Grünewald. (*Gaz. B.-A.* IV, 1921, pp. 1-22; pl.; 15 figs.)

POLAND

A Romanesque Bronze Door.—Through an analysis of the style and iconographical details of the bronze door of the cathedral of Gnesen in Posen (one of the most venerable monuments of ancient Poland), C. FURMANKIEWICZ (*Gaz. B.-A.* III, 1921, pp. 361-370; pl.; 7 figs.) dates the work and ventures a hypothesis as to its authorship. The scenes represent the life of St. Adalbert, and it is particularly in the details of costumes and liturgical accessories, French Romanesque in their origin, that the key is given to the date, which

must be the first half of the twelfth century. The knowledge displayed concerning ecclesiastical forms and costumes, as well as the general character of the work, conforms with what would be expected from the artist Leopardus, known only documentarily.

SWEDEN

The So-Called Birka Coins.—L. KJELLBERG discusses the so-called Birka coins of which the greater number have been found on the island of Björkö (Birka). They belong to the ninth and tenth centuries, and are made in imitation of the Dorstadt denarii of Charlemagne and of Louis the Pious. They are entirely lacking in Christian symbols, and are the work of native designers. (*Fornvännen*, XII, 1917, pp. 41-46.)

Coins of Knut Eriksson.—G. GALSTER attributes to the period of Knut Eriksson (ca. 1200 A.D.) and his successor a series of coins from Södermanland which H. Hildebrand assigned to the Swedish king Waldemar, 1250-1275. (*Fornvännen*, XII, 1917, pp. 96-101; 4 figs.)

GREAT BRITAIN AND IRELAND

The Breadalbane Brooch.—Sir C. H. READ and R. A. SMITH describe (*Proc. Soc. Ant. XXXII*, 1919-1920, pp. 63-66; pl.) a beautiful silver brooch from the Breadalbane collection, recently acquired by the British Museum. Its ornament of filigree interlaces, birds' heads, and inset colored glass is characteristic of Irish and Scotch work of the eighth century.

An Ivory Panel.—O. M. DALTON describes a triangular panel of ivory found at St. Cross and now in the Winchester Museum. On it are represented two angels, back to back. The workmanship has remarkable delicacy and vitality, and is to be attributed to an English craftsman of about 1000 A.D. (*Proc. Soc. Ant. XXXII*, 1919-1920, pp. 45-57; fig.)

English Alabaster Tables.—A series of English alabaster tables and images is described by W. L. HILDBURGH (*Proc. Soc. Ant. XXXII*, 1919-1920, pp. 117-129; 6 figs.). One, only a fragment, is a part of a representation of the Assumption. A second, also a fragment, shows three figures, one of whom is St. Edward the Confessor. On a third panel the Betrayal of Christ is portrayed. An alabaster image, obtained in France, represents St. Barbara. Ten fragments of tables come from the church of St. Andrew at Wotton, and show scenes in the Life of the Virgin. In addition to these examples in England, a number of English alabaster carvings now in Spain are described.

Alabaster Carvings.—W. L. HILDBURGH describes (*Ant. J. I*, 1921, pp. 222-231; 2 pls.; 4 figs.) a number of English alabaster carvings, including (1) a group of four reliefs of unknown provenance, representing the Carrying of the Cross, the Deposition, the Entombment, and the Resurrection; (2) a table representing the Ascension, remarkable in the fact that the figure of Christ is represented in full length; (3) a panel showing the consecration of an archbishop, probably Becket or William of York; (4) a table showing St. James and St. John; (5) images of St. Christopher.

RENAISSANCE ART

ITALY

Leonardo and Boltraffio.—Contending that Leonardo himself, and not Boltraffio, is the author of *La Belle Ferronnière* in the Louvre, C. HOLMES (*Burl. Mag.* XXXIX, 1921, pp. 107-108; 2 pls.) reproduces the portrait of a youth in the collection of Sir Philip Sassoon, in which he sees the characteristics of Boltraffio as contrasted with those of his master. Boltraffio appears as a more sensitive colorist, but as a less perfect designer and craftsman.

A Drawing by Leonardo for the Leda.—A drawing of a female head in the museum of the Castello Sforzesco, Milan, is suggested by A. VENTURI (*L'Arte*, XXIX, 1921, p. 42; pl.) to be not the work of Antonio Bazzi but of Leonardo himself. The turn of the head and the suave and delicate treatment throughout the work places it in the master's late period, close to the *St. Anne* of the Louvre. And it seems not a far fetched hypothesis to see in the drawing a study for the standing *Leda*, the *Leda* freely copied by Raphael in the Windsor drawing and by many followers of Leonardo in painting.

The Crucifixion in S. Maria delle Grazie.—The collaboration of Leonardo with Donato Montorfano in the Crucifixion in the refectory of S. Maria delle Grazie is discussed by L. BELTRAMI (*Rass. d'Arte*, VIII, 1921, pp. 217-232; 11 figs.). The conclusion is that Montorfano in 1494-95 completed the whole composition, including the outlines of the four figures in the ducal family. The coloring of these figures was left for Leonardo. Between 1497 and 1499 Leonardo painted these figures in oil. His technique was somewhat different from that used in his *Last Supper* because for the ducal family Montorfano had already put on the ground treatment for fresco. Leonardo did not slavishly conform to the outlines made by his predecessor. How much freedom he allowed himself is indicated by his introduction of a Moorish servant behind Ludovico.

Drawings by Giambellino and Raphael.—A. VENTURI publishes two drawings in the Pinacoteche Civiche at Brescia (*L'Arte*, XXIX, 1921, pp. 7-9; 2 figs.). One, representing the Entombment, is an excellent example of the work of Giambellino. The other, formerly attributed to Perugino, is one of the most complete of extant drawings by Raphael. The only thing lacking to make it a complete picture is the color. The same author writes on three drawings by Raphael in the Teyler Museum in Haarlem (*Ibid.* pp. 19-23; 4 figs.). One is a putto similar to the one used by Raphael in the chamber of Pope Julius and in the fresco of Sant' Agostino at Rome. The second is a study of an equestrian group for the Attila. The third is a sketch for the Marriage of Alexander and Roxana painted by Sodoma in the Farnesina. Still other drawings by Raphael are published by A. VENTURI (*Ibid.* pp. 49-54; 7 figs.). They belong to the Oppenheimer collection in London and to the Windsor Library, and include a study for a musician, two hands, a design for a platter, and studies for the Disputa, the Attila, and the Loggia.

Paintings by Correggio.—R. LONGHI publishes a *St. Jerome* in the Academy of S. Fernando, Madrid, and a *Holy Family* in the Museum of Orléans, which he attributes to the early period of Correggio, to about 1515 (*L'Arte*, XXIX, 1921, pp. 1-6; 2 figs.). A. VENTURI publishes a painting in the Hofmuseum at Vienna, which there bears the name of *Helio Orsi da Novellara* (*Ibid.* p. 33; fig.).

It represents the *Mansuetudine* in the half length figure of a woman who presses a lamb to her breast. In spite of its damaged condition, its qualities are sufficiently Correggienesque to suggest the hand of the master himself.

Fifteenth Century Leather Work.—P. CAMPETTI publishes a beautiful fifteenth century tooled leather casket in the cathedral at Lucca (*Dedalo*, II, 1921, pp. 240-250; 9 figs.). It is decorated with colored compositions in relief representing scenes from the life of Christ (Fig. 5). F. MALAGUZZI-VALERI publishes a fifteenth century leather case, probably of Lombard workmanship, in the Museum of Industrial Art at Bologna (*Ibid.* pp. 305-308; 2 figs.). It



FIGURE 5.—LEATHER CHEST: LUCCA.

is a case for containing the stone for testing the gold of jewelry. The love scene depicted on the outside is in the style of Pisanello.

Sixteenth Century Roman Ceramics.—U. GNOLI writes on the sixteenth century humanist, Giovanni Goritz of Luxemburg, and of Domenico Gnoli's search for the manuscripts and other treasures hidden by Goritz during the sack of Rome in the garden of his home at the foot of the Campidoglio. Besides many fragments, only two pieces of ceramics were found, a plate and a candlestick. These are now owned by the author of the article. (*Dedalo*, II, 1921, pp. 199-202; 2 figs.)

Sixteenth Century Mirror Frames.—L. DAMI publishes a number of Italian mirror frames, mostly Florentine, which he dates from the beginning to past the middle of the sixteenth century. They were all destined to be hung on the wall, as opposed to hand mirrors, and the emphasis is always upon the frame rather than upon the mirror. A few have circular glasses, but in nearly all cases the glass is rectangular and there is usually a sliding door to cover it, apparently because its glitter would interfere with the effect of the carved and colored frame. Architectural features are generally used in the adornment, and the frame takes on the semblance of a door, a tabernacle, or a window. (*Dedalo*, I, 1921, pp. 625-642; pl.; 12 figs.)

A "*Mariegola*."—R. BRATTI writes on the "*Mariegola*" (*Mater Regula*) of the Calafati in the Arsenal at Venice. It is an example of the richly bound and illuminated volumes in which the art corporations of Venice recorded their rules

and laws. It was finished in the second half of the sixteenth century and compares in the magnificence of its cast silver binding and its rich miniatures by Giorgio Colonna with such a monument as the Grimani breviary. (*Dedalo*, II, 1921, pp. 169-180; 7 figs.)

Petrarch's Tomb.—A. CALLEGARI outlines the vicissitudes of the tomb of Petrarch in Arquà, with special reference to the bronze bust of the poet which adorns the sarcophagus. This bust, made and put in place in 1547 at the order of Paolo Valdezocco, is of much greater interest upon close examination than one can realize from the usual point of view. Of a little more than life size, it presents a serious, contemplative interpretation of the subject. In itself, it does not add anything new to the iconography of the poet. But it is significant that among all the portraits of Petrarch in Padua the sculptor has chosen as his prototype the fresco in the Sala dei Giganti, indicating that in the mid-sixteenth century this fresco enjoyed the greatest fame in Padua as a true likeness of Petrarch. (*Dedalo*, I, 1921, pp. 723-728; pl.; 2 figs.)

Fifteenth Century Wooden Sculpture.—L. SERRA publishes three unusually fine wooden statues, which show how high a plane this art reached in the more remote regions of Italy. The examples under discussion were produced in the Marches. A very simply designed but animated Virgin and Announcing Angel lately acquired by the National Gallery of Urbino are less well preserved but probably not less fine in their way than the dignified hieratic Madonna della Misericordia of the Accademia Georgica at Treia. (*Dedalo*, I, 1921, pp. 693-697; pl.; 4 figs.)

Tintoretto's Drawings.—D. FREIHERR VON HADELN describes the masterly quality of Tintoretto's drawings, choosing for illustration only a few out of the great number of extant examples. It is noticeable that practically all represent single figures. This observation leads to an investigation into Tintoretto's manner of giving visual form to his compositions before painting them. Instead of making drawings of them, he made wax models. His method of procedure seems to have been as follows: On an elaborate scaffolding, placed at the desired height with reference to the eye, the artist arranged his composition with wax figures. Before this composition in three dimensions he stretched a net. His large canvas was marked off into squares corresponding to the squares of this net, and sections were marked off on drawing sheets. Then studies were drawn of the single figures, and these were transferred to the canvas before the final painting was begun. (*Jb. Preuss. Kunts.* XLII, 1921, pp. 82-103, 169-189; 29 figs.)

A Portrait of Piero de' Medici.—T. DE MARINIS discusses the full-page portrait of a youth in the 1488 edition of Homer in the Biblioteca Nazionale, Naples. There are several reasons for concluding that this is a portrait of Piero de' Medici. First, the portrait agrees with the age of Piero at this time and is sufficiently like other known representations of him, notably, the portrait in Ghirlandaio's fresco in the Sassetti chapel in Santa Trinità. Second, the copy of the Homer in which this portrait appears is dedicated to Piero. Third, a portrait in an illuminated border of the book represents the same person and is distinctly referred to in the dedication as Piero. A critical study of the painting of the full-page portrait indicates Ghirlandaio himself as its author. (*Dedalo*, II, 1921, pp. 38-46; pl.; 2 figs.)

Ghiberti's Glazed Terra-cotta.—W. VON BODE shows that in certain terra-

cotta reliefs which may be attributed to Ghiberti the artist has made attempts at glazing. The reliefs representing the story of Adam and Eve on a chest in the Victoria and Albert Museum and on a fragment of its companion piece in the Museo dell' Opera del Duomo, Florence, are treated with a tin glaze; a relief of the Madonna and Child in the Volpi collection, Florence, has a lead glaze. The experiments were not very successful, but they bore fruit in inspiring the younger artist, Luca della Robbia, to continue the attempts and to perfect the technique. (*Jb. Preuss. Kunsts.* XLII, 1921, pp. 51-54; pl.; 3 figs.)

Michele da Verona.—T. BORENIUS offers a brief study of Michele da Verona, whose Crucifixion in the Brera, dated 1501, forms the best touchstone for other attributions. Venetian influence upon the artist is seen in his allegorical scene, owned by Lady Horner, here reproduced for the first time. Of special iconographical interest is a drawing of the Trial of Moses in Mr. A. P. Oppé's collection. (*Burl. Mag.* XXXIX, 1921, pp. 3-4; pl.; 2 figs.)

Francia's Portrait.—E. E. C. JAMES publishes a portrait of a man from the Campana collection in Rome and now in the museum at Angers, which she believes to be a self-portrait of Francesco Francia, the one he sent to his friend Raffaello in 1508. A portrait in the Boschi collection evidently portrays the same man some years earlier. (*Burl. Mag.* XXXIX, 1921, p. 89; 2 figs.)

Drawings by Pisanello.—Two drawings of stags, studies for the Sant' Eustachio painting, are published by A. VENTURI (*L'Arte*, XXIV, 1921, pp. 90-96; figs.). They are from the Bonnat collection in Paris. Other interesting drawings from this collection are a study for the reverse of the medal of Alfonso of Aragon, studies of leaves and flowers, and a representation of the Santo of Padua as it was in the artist's day. Finally, an unusually fine and naturalistic drawing of a dromedary is published from the Windsor Library.

Paintings by Piero della Francesca.—Two panels representing St. Clara and St. Dominic in the Liechtenstein Gallery, Vienna, are attributed by A. VENTURI (*L'Arte*, XXIV, 1921, pp. 152-154; 2 figs.) to Piero della Francesca. Apparently they originally formed parts of a polyptych. They belong to about the same time as the Madonna with Angels of Sinigaglia.

The Mask of Dante.—The so-called mask of Dante, which exists in so many duplicates, is the basis of a study by C. RICCI (*Rass. d'Arte*, VIII, 1921, pp. 289-294; 6 figs.). Apparently the one from which all the others are cast or modelled is that in the Dante Museum at Ravenna; for it is the one that came into the possession of John of Bologna and later was in Tacca's studio, where there were many sculptors to copy it. But that even it is not actually a mask taken from the face of the poet is shown by a careful study of it. The soft lines of the face, the full treatment of the lips, the open eyes, the indication of the cap, etc., to say nothing of the beauty of modelling, indicate that it is the work of a sculptor or cast from the work of a sculptor. Ricci believes, from comparing the work with the head of Guidarello Guidarelli, that its sculptor was Tullio Lombardi.

The Cleopatra of the Louvre.—C. MARCEL-REYMOND calls attention to the fact that the Cleopatra in the Louvre attributed to Gianpetrino is another instance of the great influence Leonardo's Leda had upon the art of the sixteenth century and investigates the attribution of the Cleopatra. That it has been assigned to Gianpetrino seems to have resulted from the general tendency to attribute to that painter all nudes, especially the numerous half-length

figures of nudes that are related closely or distantly to the Milanese school that followed Leonardo. In reality, the character of this painting gives it to the school of Sodoma, if not to that master himself. (*Gaz. B.-A.* IV, 1921, pp. 211-224; 9 figs.)

The Visconti Venosta Collection.—C. GAMBA describes the Visconti Venosta collection (*Dedalo*, I, 1921, pp. 506-534; pl.; 26 figs.). This is of particular interest because Visconti Venosta found time in spite of his active diplomatic career for intimacy with Morelli and Cavanaghi, whose combined efforts made



FIGURE 6.—TABERNACLE BY BERNARDO DADDI: ROME.

the Milan of their day the centre of art collecting in Italy. The Visconti Venosta collection was long ago removed to Rome. Although its treasures are known singly the effect of its total riches presented by Gamba is surprising. Among significant things may be mentioned examples of Italian and northern minor arts (furnishings and utensils), sculpture, and a thoroughly representative collection of Italian painting beginning with the time of the Giottesques (Figs. 6-7).

The Villa d'Este at Tivoli.—The history of the Villa d'Este at Tivoli is the subject of a recent article by VINCENZO PACIFICI. (*Atti e Memorie della Società Tiburtina di Storia e d'Arte*, I, 1921, pp. 58-83; 4 pls.)

SPAIN

A Painting by Navarrete.—B. G. MUR publishes a painting of St. John on Mount Patmos (in the collection of the author) which he shows to be the painting for which King Philip II gave a commission in 1571 to Juan Fernandez Navarrete (called El Mudo). The painting is full of Venetian qualities and helps to characterize its author as "the Spanish Titian." (*B. Soc. Esp.* XXVIII, 1920, pp. 216-225; pl.)

A Spanish Collection.—J. PEÑUELAS describes some paintings in the collection of D. Félix Labat. Among the treasures are a fourteenth century Italian Madonna, showing Byzantine influence (possibly to be attributed to Lorenzo Veneziano), a Madonna by Botticelli, a Holy Family by Raphael or a follower, two paintings by El Greco, two by Zurbaran, and several examples of northern schools, attributed to Van der Goes, Mabuse, etc. (*B. Soc. Esp.* XXIX, 1921, pp. 72-77; 2 pls.)



FIGURE 7.—MADONNA BY PIN-
TURICCHIO: ROME.

Spanish Renaissance Houses.—The Marquis of LOZOYA describes a number of Renaissance houses of Segovia (*B. Soc. Esp.* XXIX, 1921, pp. 85-95; 2 pls.). While church architecture clung to the Gothic style far into the Renaissance period, the new style was early

adopted for domestic building. Engineers and sculptors came from Ávila and Valladolid, but their style was necessarily modified by the new conditions which they had to meet, particularly by the character of the material offered by the region. The fact that they had to use granite for much of their work imposed a general simplicity and soberness upon the decoration. The same author discusses the houses of the reign of Henry IV and Isabella, in the late fifteenth and early sixteenth centuries (*Ibid.* pp. 1-12; 2 pls.).

BELGIUM AND HOLLAND

Pictures from the School of Rembrandt.—R. R. TATLOCK publishes a painting of Tobias Curing his Father's Blindness (owned by Mr. A. H. Buttery), which he attributes to an unknown artist of the school of Rembrandt in the middle of the seventeenth century. A second picture, Jacob and his Blood-stained Coat (National Gallery, Helsingfors), is clearly the work of another disciple of Rembrandt, Govaert Flinck, by whom it is signed. (*Burl. Mag.* XXXIX, 1921, pp. 195-196; 2 pls.)

Painters of Mechlin.—M. J. FRIEDLÄNDER finds in a number of engravings a clue to the kind of work painters were doing in Mechlin in the early sixteenth century under the regency of Margaretha. Among the Mechlin painters of this period listed by van Mander, it is possible to identify Nicolas (given *Hans*

by van Mander), Hogenberg and Frans Crabbe as the authors of extant engravings, notably the series of The Entry of Charles V into Bologna by Hogenberg. Hogenberg, who came from the south, was more independent than Crabbe; the latter was apparently not a little influenced by him as well as by others. (*Jb. Preuss. Kunsts.* XLII, 1921, pp. 161-168; 5 figs.)

A Self-Portrait by Rembrandt.—R. FRY describes the qualities in a portrait little known to the public, which is a late work by Rembrandt and one of his finest creations. (*Burl. Mag.* XXXVIII, 1921, pp. 262-263; pl.)

The Barend Family.—J. HEWITT traces some of the main facts in regard to several generations of the Dutch painters, the Barend family. One member, Barent Dircksz, is identified as the painter of several pictures in Chichester cathedral, formerly thought to have been done by an Italian named Theodoricius Barnardi. The work is to be dated in about 1519. (*Burl. Mag.* XXXVIII, 1921, pp. 263-264; fig.)

A Painting by Vermeer.—R. R. TATLOCK publishes the little painting of the Girl with the Flute, recognized a few years ago as a work of Vermeer of Delft. (*Burl. Mag.* XXXIX, 1921, pp. 28-33; fig.)

The "Hours" of James IV.—P. DURRIEU gives a résumé of the characteristics of the school of miniature painters which, from the region in which it was active, he terms "*ganto-brugeoise*," and he publishes a Book of Hours done by this school, which is identified by coats of arms and other insignia as that of James IV, king of Scotland, and his wife, Margaret of England. The manuscript is of special importance not only because of the excellent quality of the best of its miniatures, but because, being datable, between 1503 and 1513, it serves to date a group of similar manuscripts hitherto undatable. (*Gaz. B.-A.* III, 1921, pp. 197-212; 2 pls.)

Drawings by Lambert Lombard.—In calling attention to the importance of authentic drawings for any analysis of the art of Lambert Lombard, M. KUNTZIGER (*Gaz. B.-A.*, IV, 1921, pp. 185-192; 6 figs.) publishes a number of the drawings and discusses their style.

AMERICAN ARCHAEOLOGY

GENERAL AND MISCELLANEOUS

Two Types of Cliff-dwellings.—J. W. FEWKES distinguishes between two types of prehistoric cliff-dwellings in the Southwest: (1) that which includes a circular and vaulted room called the kiva, used for ceremonial purposes, found in Colorado and northern Arizona; (2) that which shows no trace of the kiva, in southern Arizona and southern New Mexico. (*Annual Report of the Smithsonian Institution*, 1919, pp. 421-426; 6 pls.)

Iroquois Archaeology.—A. B. SKINNER has published an additional study of the characteristic Iroquoian remains in New York State. The monograph contains three papers: Archaeological Problems of the Northern Iroquois, Notes on Cayuga Archaeology, and Archaeological Researches in Jefferson County, N. Y. The author reiterates the conclusion that there are two culture levels in the region, an older, more uniform Algonkian level, and a later somewhat varied Iroquoian one. He thinks that Cayuga pottery is a development subsequent to the arrival of the Iroquois in their historic habitat (p. 87). Their ceramic art does not resemble that of the Cherokee and other southern Iroquoian

peoples. He summarizes the two cultures by contrast: "The material culture of the early Iroquois of New York was, roughly speaking, a culture of bone and of clay. . . . The Algonkian culture was one which developed the working of stone." [*Notes on Iroquois Archaeology*, New York, 1921, Museum of the American Indian. 216 pp.; 37 pls.; 52 figs.]

The Lenapé.—M. R. HARRINGTON is the author of one of a much needed series of studies on the life of the Delaware or Lenapé Indians formerly inhabiting New Jersey and Pennsylvania. These people removed from the east and are now to be found distributed in various parts of the west to the number of about 1900 in Oklahoma, Ontario and Kansas. Harrington treats the Lenapé pantheon, minor deities, beliefs of the soul, visions and guardian spirits and the great annual ceremony, and minor ceremonies. The ethnologist is struck with a conviction of the derivation of Lenapé institutions from both the Iroquois and the southern culture areas. The use of masks, stone sculptures, purification rites, and dances are instances. The whole account of this little-known group is not so full but that we could wish for more. [*Religion and Ceremonies of the Lenapé*. New York, 1921, Museum of the American Indian. 249 pp.; 9 pls.; 19 figs.]

The Sun Dance.—LESLIE SPIER has published two papers which furnish an ethnological survey and equation of the dominant feature of the religious life of the plains Indians. The Sun Dance is a ceremonial complex, its minor traits borrowed back and forth in the region under a systematic selection, the product of a long series of historical events. [*Notes on the Kiowa Sun Dance*, Anthropological Papers of the American Museum of Natural History, XVI, 1921, part VI; 13 pp.; fig. *The Sun Dance of the Plains Indians, its Development and Diffusion*, *ibid.* part VII; 67 pp.; map.]

The Stone of the Sun.—A work by E. J. PALACIAS on the Stone of the Sun in the Archaeological Museum in Mexico has been translated by F. STARR. It comprises a description of the stone, and an interpretation of its symbols, which express the prehistoric Mexican division of time, from minutes to centuries of 104 and cycles of 416 years. The author draws some inferences regarding the chronology and history of the Indian races of Mexico. [*The Stone of the Sun and the First Chapter of the History of Mexico*. Chicago, 1921, University of Chicago Press. 78 pp.; 3 pls.; fig.; 4to.; \$0.75.]

A Mexican Stone Drum.—H. BEYER discusses an ancient Mexican representation of a drum in stone, now in the Museo Nacional in Mexico. (*Mémoires de la Société Scientifique "Antonio Alzate,"* XXXIX, 1921, pp. 335-342; 8 figs.)

A Mexican Vase.—H. BEYER describes an ancient Mexican vase which has the curious form of an upturned head, the open mouth being the orifice of the vase. (*Mémoires de la Société Scientifique "Antonio Alzate,"* XXXIX, 1921, pp. 195-201; 5 figs.)

BIBLIOGRAPHY OF ARCHAEOLOGICAL BOOKS

1921

SIDNEY N. DEANE, *Editor-in-charge*

*.*Books, pamphlets, and other matter for the Bibliography should be addressed to Professor SIDNEY N. DEANE, Smith College, Northampton, Mass.

GENERAL AND MISCELLANEOUS

- Archaeologia Aeliana**, ed. R. Blair, third series, Vol. XVIII. Newcastle-on-Tyne, 1921, Society of Antiquaries. xxxix, 215 pp. 8vo.—**Archaeological Survey of India**, Annual Report, 1914-15, ed. Sir J. Marshall. Calcutta, 1920. Govt. Printing. 162 pp. 8vo. 15s.
- B. C. Bhattacharya**, *Indian Images*, Part I. The Brahmanic Iconography. London, 1921, Thacker Spind. 79 pp.; 30 pls. 8vo. 10s. 6d.—**Hermann Beyer**, *El llamado "Calendario Azteca": Descripción e Interpretación del Cuauhxicalli de la "Casa de las Águilas."* Mexico, 1921, Verband Deutscher Reichsangehöriger. vii, 129 pp.; pl.; 250 figs. 8vo.—**Hermann Beyer**, *Otro Antiguo Vaso Mexicano en Forma de Cabeza; el Tambor de Piedra del Museo Nacional.* (Reprint from *Memoirs of the Sociedad Científica "Antonio Alzate,"* XXXIX.) Mexico, 1921, Imprenta de la Secretaría de Gobernación. 16 pp.; 13 figs. 8vo.—**Lawrence Binyon**, *The Court Painters of the Grand Moguls.* With historical introduction and notes by T. W. Arnold. London, 1921, Milford. 86 pp.; 40 pls. 4to. 63s.—**L. Borchardt**, *Die Geschichte der Zeitmessung und der Uhren, I. Altägyptische Zeitmessung.* Berlin, 1920, Reimer. xi, 70 pp.; pls. 4to.—**G. F. Browne**, *On Some Antiquities in the Neighborhood of Dunecht House, Aberdeenshire.* xiv, 170 pp.; 60 pls. 4to. 63s.—**W. C. Burkitt**, *Prehistory, a Study of Early Cultures in Europe and the Mediterranean Basin.* Cambridge, 1921, University Press. xx, 438 pp. 4to. 35s.—**William Buxton**, *A General History of Porcelain.* 2 vols. London, 1921, Cassell. xviii, 204 pp.; ix, 228 pp.; figs. 8vo. 84s.
- The Cambridge History of India**, Vol. I. *Ancient India*, ed. E. J. Rapson. Cambridge, 1922, University Press. xxiv, 736 pp.; 34 pls.; 6 maps. 8vo.—**Baron Carra de Vaux**, *Les Penseurs de l'Islam. Tome I: Les souverains, l'histoire et la philosophie politique.* Paris, 1921, Geuthner. 300 pp. 8vo. 8 fr.—**A. Chevalier**, *Le site d'Aéria.* Valence, 1920, Céas. 72 pp.; pls. 8vo.—**C. S. Clarke**, *Indian Drawing. Twelve Mogul Paintings of the School of Hāmājān, illustrating the romance of Amir Hamzah.* (Victoria and Albert Museum Portfolios.) Pls. Folio. 5s. 5d.—**C. Clemen**, *Religionsgeschichtliche Bibliographie in Anschluss an das Archiv für Religionswissenschaft.* Leipzig, 1920, Teubner. 40 pp.—**W. Cohn**, *Die alt-buddhistische Malerei Japans.* (Bibliothek der Kunstgeschichte, Bd. 13.) Leipzig, 1921, Seemann. 12 pp.; 20 pls. 8vo. 9 M.—**O. G. S. Crawford**, *Man and his Past.* London, 1921, Milford. xvi, 227 pp.; 12 figs.; maps. 8vo. 10s. 6d.

- E. Derbaix**, Les monuments de la ville de Binche. Brussels, 1920, Vromant. 64 pp.; pls. 8vo. — **Detroit Institute of Arts**, Catalogue of Paintings, Sculpture, and Contemporary Arts and Crafts. Detroit, 1920, Institute of Arts, 196 pp.; pls. 8vo. — **E. Diez**, Churasanische Baudenkmäler, I. Berlin, 1918, Reimer. xi, 116 pp.; pls. 4to. — **A. Dudan**, La Dalmazia nell' arte italiana: venti secoli di civiltà. I: da la preistoria all' anno 1450. Milano, 1921, Treves. xv, 208 pp.; 106 pls. 8vo. 25 fr.
- Jean Ebersolt**, Mission archéologique de Constantinople. Paris, 1921, E. Leroux. 71 pp.; 40 pls.; 6 figs. 8vo. — **F. C. Endres**, Die Ruine des Orients: Türkisches Städtebilder. Munich, 1919, Duncker und Humboldt. iv, 198 pp.; 11 pls. 8vo. — **Ivor H. N. Evans**, Among Primitive People in Borneo. Philadelphia, 1922, Lippincott. 318 pp.; pls. 8vo. \$5.
- Élie Faure**, A History of Art: Ancient Art. Translated from the French by Walter Pach. Vol. I. New York, 1921, Harper. xlix, 306 pp.; figs. 8vo. \$6. — **H. B. Ferris**, Anthropological Studies on the Quichua and Machiganga Indians. (Transactions of the Connecticut Academy of Arts and Sciences, XXV.) New Haven, 1921, Connecticut Academy of Arts and Sciences. 92 pp.; pls. 8vo. \$3.50. — **Sir J. G. Frazer**, Les origines magiques de la royauté. Trad. par P. Hyacinthe Loyson. Paris, 1920, Geuthner. 367 pp. 4to. 25 fr.
- **A. Fuchs**, Die Kultur der keltischen Vögesensiedelungen mit besonderer Berücksichtigung des Wasserwaldes bei Zabern. Zabern, 1914, Fuchs. xi, 190 pp.; 33 pls. 8vo.
- O. Grabowski**, Das Hakenkreuz und die Wiege des Indogermanentums. Berlin, 1921, Verlagsanstalt für vaterländische Geschichte und Kunst. 142 pp.; 480 figs. 8vo. 15 M.
- A. Hackmuck**, Der chinesische Teppich. Hamburg, 1921, Friederichsen. x, 34 pp.; 26 pls.; 5 figs.; map. 8vo. 25 M. — **K. Hagen**, Altertümer von Benin im hamburgischen Museum für Völkerkunde, II. Hamburg, 1918, Meissner. 90 pp.; 10 pls. 8vo. — **R. Halliday**, Mon-English Dictionary. Bangkok, Siam, 1922, Siam Society, 707 Sathorn Road. 500 pp. 8vo. 18 Ticals.
- **M. R. Harrington**, Religion and Ceremonies of the Lenapé. (Ind. Not.) New York, 1921, Museum of the American Indian. 249 pp.; pls. 16mo. — **Max Herz-Pascha**, Die Baugruppe des Sultans Qalaun in Kairo. Hamburg, 1919, Friederichsen. vii, 54 pp.; 35 pls. 8vo. — **A. L. Hetherington**, The Pottery and Porcelain Factories of China. London, 1921, K. Paul. 8vo. 10s. 6d. — **M. Hoernes**, Das Gräberfeld von Hallstatt, seine Zusammensetzung und Entwicklung. Leipzig, 1921, Kabitzsch. 45 pp.; 80 figs. 4to. 30 M.
- Jahrbuch des Deutschen Archäologischen Instituts**, Register zu Bd. 21-30, 1906-1915. Bearb. v. L. Malten. Berlin, 1921, Vereinigung wissens. Verleger. iii, 352 pp. 4to. 80 M.
- Isidore Kozminsky**, The Magic and Science of Jewels and Stones. New York, 1902, Putnam. xv, 434 pp.; 39 colored pls.; figs. 8vo. \$4.50. — **F. Krause**, Die Kultur der kalifornischen Indianer in ihrer Bedeutung für die Ethnologie und die nordamerikanische Völkerkunde. (Staatl. Forschungsinstitut in Leipzig, Institut für Völkerkunde, Reihe 1: Ethnographie und Ethnologie, Bd. 4.) Leipzig, 1921, Spämer. viii, 98 pp.; 14 pls.; figs.; 5 maps. 4to. 50 M. — **Otto Kümme**, Die Kunst Ostasiens. (Die Kunst des Ostens, Bd. 4.) Berlin, 1921, Cassirer. v, 48 pp. 70 M.
- **Die Kunst- und Altertumsdenkmale in Württemberg**, 60-64. Donaukreis. (2) Oberamt Kirchheim. Esslingen, 1921, P. Neff. 238 pp.; 310 figs. 4to.
- Eman La Roche**, Indische Baukunst. 1 Tl.: Tempel, Holzbau und Kunstgewerbe. 2 Tl.: Moscheen und Grabmäler. 3 Tl.: Stalaktiten, Paläste und Gärten. (6 vols.) Bd. 1-2. Munich, 1921, Bruckmann. xx, 65 pp.; 38 pls.; figs.; 11 double pls. Folio. — **Jörg Lechler**, Vom Hakenkreuz: die Geschichte eines Symbols. Leipzig, 1921, Kabitzsch. viii, 28 pp.; 351 figs. 4to. — **Georg Lehnert**, Geschichte des

- Kunstgewerbes. 1.: Das Kunstgewerbe im Altertum. (Sammlung Götschen Bd. 819.) Berlin, 1921, Vereinigung wissens. Verleger. 88 pp.; 32 pls. 4.20 M.—**Frederick Litchfield**, Antiques, Genuine and Spurious. New York, 1921, Harcourt, Brace. 277 pp.; figs. 8vo. \$10.—**Baron de Loë**, Notions d'archéologie préhistorique, belgo-romaine et franque. Brussels, 1921, Van Buggenhoudt. 281 pp.; figs. 8vo. 3.50 fr.—**Ernst Lohmeyer**, Vom göttlichen Wohlergehen. (Sitzb. der Heidelberger Akad. der Wissenschaften 1919, Abh. 9. Heidelberg, 1919, Winter. 52 pp. 8vo. 1.75 M.—**F. M. Lund**, Ad Quadratum, a study of the geometrical basis of classical and mediaeval architecture. 2 vols. London, 1921, Batsford. 385 pp.; pls. 8vo. £5.—**F. von Luschan**, Veröffentlichungen aus dem Museum für Völkerkunde, Die Altertümer von Benin. Berlin, 1919, Reimer. xii, 522, xxvi pp.; 129 pls. 4to.
- R. A. S. Macalister**, A Text Book of European Archaeology. Vol. I: The Palaeolithic Period. Cambridge, 1921, University Press. xv, 610 pp.; 200 figs. 8vo. 50s.—**T. Mainage**, Les religions de la préhistoire: l'âge paléolithique. Paris, 1921, Picard. viii, 438 pp.; pls. 8vo. 30 fr.—**G. B. Manieri**, Catalogo-inventario del museo civico aquilano. Aquila, 1920, Vecchioni. 64 pp. 8vo. 1.50 fr.—**A. Melani**, L'arte di distinguere gli stili (terre, vetri, tessuti). Milano, 1921, Hoepli. xxxi, 558 pp.; 24 pls. 24to. 28 fr.—**Mémoires de la Société royale des antiquaires du Nord**, 1918-19. Copenhagen, 1920, Gyldendal. 130 pp. 8vo.—**Mémoires de l'Institut national de France**, (Académie des inscriptions et belles-lettres), XLI. Paris, 1920 imp. nationale. 403 pp.; pls. 4to.—**T. Michelson**, The Owl Sacred Pack of the Fox Indians. (Smithsonian Inst., Bureau of Am. Ethnology, Bulletin 72.) Washington, 1921, Govt. Printing Office. 83 pp.; pls. 8vo. \$0.40.—**Margaret A. Murray**, The Witch-Cult in Western Europe, a Study in Anthropology. Oxford, 1921, Clarendon Press. 304 pp. 8vo.—**Mysore**, Archaeological Department, Architecture and Sculpture in Mysore. No. 1: The Kessava Temple at Somanathapur, by R. A. Narasimhachar. No. 2: The Kesava Temple at Belur, by R. A. Narasimhachar. Bangalore, 1917-1919. 4to.
- Yone Naguchi**, Hiroshige. New York, 1921, Orientalia. 32 pp.; pls. 4to. \$7.50.—**A. Neuburger**, Die Technik des Altertums. Leipzig, 1919, Voigtlaender. viii, 569 pp.; 676 figs. 8vo.—**Martin Ninck**, Die Bedeutung des Wassers in Kult und Leben der Alten: eine symbolgeschichtliche Untersuchung. Leipzig, 1921, Dieterich. 24 M.—**Sydney P. Noe**, Coin Hoards. (Num. Not.) New York, 1920, American Numismatic Society. 47 pp.; 6 figs. 16mo.—**Riccardo Nobili**, The Gentle Art of Faking: a history of the methods of producing imitations and spurious works of art from the earliest times up to the present. Philadelphia, 1922, Lippincott. 318 pp.; pls. 8vo. \$6.—**Norfolk Archaeology**, Vol. XX, Part III. Norwich, 1921, The Society. Pp. 241-341. 8vo.
- E. J. Palacios**, The Stone of the Sun and the First Chapter of the History of Mexico. (The University of Chicago, Department of Anthropology, Bulletin VI.) Translated from the Spanish by F. Starr. Chicago, 1921, University of Chicago Press. 78 pp.; 3 pls.; fig. 8vo. \$0.75.—**A. Parat**, Notes archéologiques villageoises de l'Avallonnais. Dijon, 1921, Jobard. 71 pp.; figs. 8vo.—**Peabody Museum of Salem**, The Hawaiian Portion of the Polynesian Collections in the Peabody Museum of Salem. Special Exhibition, August-November, 1920. Salem, 1920, Peabody Museum. 381 pp.; pls.; figs. 8vo. \$1.50.—**Otto Pelka**, Elfenbein. (Bibliothek für Kunst und Antiquitätensammler, Bd. 17.) 346 pp.; figs. 8vo.—**P. Pelliot**, Les Grottes de Touen-Houang. Peintures et sculptures bouddhiques des époques des Wei, des T'ang et des Song. IV: Grottes 111A-120N. Paris, 1921, Geuthner. 64 pls. 4to. 75 fr.—**G. H. Pepper**, A Wooden Image from Kentucky. (Ind. Not. X, No. 7.) New York,

- 1921, Museum of the American Indian. Various paging; pls. 16mo.
- Raphael Petrucci**, Chinese Painters: a critical study, translated by Frances Seaver. New York, 1920, Brentano. 155 pp.; figs. 8vo. —**L. Pfeiffer**, Die Werkzeuge der Steinzeit-Menschen. Jena, 1920, Fischer. x, 415 pp.; 540 figs. 8vo. —**A. Pinetti**, Il museo di Berlino. Bergamo. 1920, Istituto d'arti grafiche. viii, 40 pp. 40 pls. 4to. 100 fr. —**A. Plettke**, Ursprung und Ausbreitung der Angeln und Sachsen. (Die Urnenfriedhöfe in Niedersachsen, Bd. 3, H. 1.) Hildesheim, 1921, Lax. vii, 110 pp.; 55 pls.; 3 maps; fig. 4to. 100 M. —**A. Polovtsov**, Les trésors d'art en Russie sous le régime bolcheviste. Paris, 1919, Société française d'imprimerie. 295 pp. 16mo.
- Camillo Praschniker** and **A. Schober**, Archäologische Forschungen in Albanien und Montenegro. Vienna, 1919, Hölder. v, 104 pp.; figs. 4to. —**Camillo Praschniker**, Muzakhia und Malakastra: Archäologische Untersuchungen in Mittelalbanien. Reprint from the Jh. Oest. Arch. I. XXI-XXII. Vienna, 1920, Holder. 236 pp.; 131 figs. 4to. 60 M. —**Proceedings of the Cambridge Antiquarian Society**, with Communications made to the Society. Vol. XXII; new series, Vol. XVI. Cambridge, 1921, Deighton Bell. viii, 134 pp. 8vo. 15s. —**Proceedings of the Prehistoric Society of East Anglia for 1920-21**, Vol. II, Part III. Ipswich, 1921, Harris. 5s.
- William Radcliffe**, Fishing from the Earliest Times. London, 1921, Murray. 478 pp.; figs. 8vo. 28s.
- G. Ravazzini**, Dizionario di architettura. Milan, 1921, Hoepli. viii, 230 pp.; figs. 24to. 10 fr.
- G. Teresio Rivoira**, Moslem Architecture, its Origins and Development. Translated by G. Mc.N. Rushforth. London, 1918, Milford. xvii, 383 pp.; figs. 4to. —**A. Rodin**, **A. Coomaraswamy**, **E. B. Havell**, and **V. Goloubew**, Sculptures cavales de l'Inde. Brussels, 1921, Van Oest. 31 pp.; pls. 4to. 125 fr. —**T. B. Roorda**, Keur van Werken van Oost-Aziatische kunst in Nederlandsch bezit. I. The Hague, 1921, Nijhoff., viii, 24 pp.; 24 pls. Folio. 68 fr. —**A. Rosenberg**, Geschichte des Kostüms, Lief. 25-28. Berlin, 1921, Wasmuth. 88 pp.; 40 pls. 4to. 120 M. —**Royal Commission on Ancient and Historical Monuments and Constructions of Scotland**, Seventh Report. County of Dumfries. London, 1921, H. M. Stationer's Office. 302 pp. 8vo.
- J. Sanz-Martinez**, El arte rupestre en la provincia de Leon. Madrid, 1921, Sanz-Calleja. 51 pp. 8vo. —**C. Schuchhardt**, Alteuropa in seiner Kultur- und Stilentwicklung. Berlin, 1919, Vahlen. xii, 350 pp.; 35 pls. 8vo. —**E. Schumacher**, Siedelungs- und Kulturgeschichte der Rheinlande von der Urzeit bis in das Mittelalter, Bd. 1: Die vorrömische Zeit (Handbücher d. röm. german. Central-Museums, Nr. 1.) Mainz, 1921, Wilkens. 254 pp.; 20 pls.; 65 figs. 4to. 40 M. —**L. Serra**, Pinacoteca e museo delle ceramiche di Pesaro. Pesaro, 1920, Vobili. 32 pp. 16mo. —**A. B. Skinner**, Notes on Iroquois Archaeology. (Ind. Not.) New York, 1921, Museum of the American Indian. 216 pp.; pls.; maps. 16mo. —**D. E. Smith**, Computing Jetons. (Num. Not., No. 9.) New York, 1921, American Numismatic Society. 70 pp.; 4 pls.; 23 figs. 16mo. \$1.50. —**Société d'archéologie de Beaune** (Côte d'Or), Mémoires (Années 1917, 1918, 1919.) Beaune, 1920, Impr. beaunoise. 131 pp. 8vo. —**South Indian Inscriptions**, Volume III: Miscellaneous Inscriptions of the Tamil Country, Part III. Edited and translated by Rao Sahib H. Krishna Sastri. (Archaeological Survey of India, New Imperial Series, Vol. XXIX.) Madras, 1921, Govt. Press. 221, 439 pp. 4to. —**D. B. Spooner**, Archaeological Survey of India, 1917-18, Annual Report. Calcutta, Govt. Printing. 53 pp.; pls. 4to. £2 8s. —**W. Staub**, Neue Funde und Ausgrabungen in der Hauxteca (Ost-Mexico). Bern, 1920, Wyss. 45 pp.; pls. 8vo. —**Aurel Stein**, Serindia: Detailed Report of Explorations in Central Asia and Westernmost China, carried out and described under the orders of H. M. Indian Government. Five volumes, with

- descriptive lists of antiques by F. H. Andrews, F. M. G. Lorimer, C. L. Woolley, and others; and appendices by J. Allan, L. D. Barnett, L. Binyon, E. Chavannes, A. H. Church, A. H. Francke, A. F. R. Hoernle, T. A. Joyce, R. Petrucci, K. Schlesinger, F. W. Thomas. Oxford, 1921, Clarendon Press. lxx, 1580 pp.; 175 pls.; 354 figs.; 59 plans; 96 maps. 4to. £12 12s.—**Eckart von Sydow**, Exotische Kunst, Afrika und Ozeanien. Leipzig, 1921, Klinkhardt und Biermann. 38, 32 pp.; pl.; 45 figs. 8vo. 12 M.
- U. Thieme and F. Becker**, Allgemeines Lexikon der bildenden Künstler. Bd. 14: Giddens-Gress. Leipzig, 1921, Seemann. viii, 600 pp. 4to. 165 M.—**E. Tietze-Conrat**, Die Bronzen der fürstlich Liechtensteinischen Kunstkammer. Vienna, 1918, Scholl. 96 pp.; 75 figs. 4to.—**A. M. Tozzer**, Excavation of a Site at Santiago, Ahuitzotla, D. F. Mexico. (Bureau of American Ethnology, Bulletin 74.) Washington, 1921, Government Printing Office. 56 pp.; 19 pls.; 9 figs. 8vo.—**A. M. Tozzer**, A Maya Grammar: with bibliography and appraisal of the works noted. (Papers of the Peabody Museum of American Archaeology and Ethnology, Harvard University, IX.) Cambridge, 1921, Peabody Museum. xvi, 301 pp. 8vo. \$3.65.—**Transactions of the Essex Archaeological Society**, Vol. XVI, Part I. Colchester, 1921, The Society. 8s.
- J. P. Vogel**, Tile Mosaics of Lahore Fort, edited by Sir J. Marshall. Calcutta, 1921, Govt. Printing. 69 pp.; 80 pls. Rs. 55.—**Volrath Vogt**, Art and Religion. New Haven, 1922, Yale University Press. xvi, 265 pp.; pls. 8vo. \$5.
- Henri Wacquet**, Vieilles pierres bretonnes. (Quimper, Notre-Dame de Kérinec, Locronan, Monuments historiques du Finistère.) Quimper, 1920, Le Guennec. 152 pp.; pls. 8vo. 6.50 fr.—**E. Wahle**, Die Besiedelung Südwestdeutschlands in vorrömischer Zeit nach ihren natürlichen Grundlagen. (Deutsches Archäologisches Institut, 12. Bericht der Römisch-Germanischen Kommission.) Ansbach, 1921, Brühl. xx, iv, 75 pp.; 7 maps.—**T. T. Waterman and Ruth Greiner**, Indian Houses of Puget Sound. (Ind. Not.) New York, 1921, Museum of the American Indian. 61 pp.; pls.; figs. 16mo.—**F. Wetzel**, Islamische Grabbauten in Indien aus der Zeit der Soldatenkaiser (1320–1450). Leipzig, 1919, Hinrichs. iv, 112 pp.; 83 pls.; 350 figs. 4to.—**E. Windisch**, Geschichte der Sanskrit-Philologie und indischen Altertumskunde, II. Berlin, 1920, Reimer. iv, 460 pp. 8vo.—**Karl With**, Brahmanische, buddhistische und eigenlebige Architektur und Plastik auf Java. (Schriftenserie Geist, Kunst, und Leben Asiens, Bd. I.) Hagen i. W., 1920, Folkwang. viii, 168 pp.; 165 figs.; 13 plans. 8vo. 50 M.—**G. Wolff**, Neue Funde und Fundstätten in der südlichen Wetterau. (Deutsches Archäologisches Institut.) Ansbach, 1921, Brühl.

EGYPTIAN ARCHAEOLOGY

Beschreibung der ägyptischen Sammlung des niederländischen Reichsmuseum der Altertümer in Leiden. IX Bd.: Mumien-särge des neuen Reiches, 2 Serie. By P. A. A. Boeser. The Hague, 1917, Nijhoff. ii, 8 pp.; 12 pls.; 31 figs. 34 M. *id.* X Bd.: Mumien-särge des neuen Reiches, 3 Serie. By P. A. A. Boeser. The Hague, 1918, Nijhoff. iv, 11 pp.; 10 pls.; 42 figs. 4to. 20 M.—**F. W. von Bissing**, Die

Datierung der Petrieschen Sinainschriften. (Sitz. Bayer. Akad., Philos.-philolog. u. hist. Klasse, 1920, Abh. 9.) Munich, 1920, Verlag der Bayer. Akad. der Wissenschaften. 22 pp. 8vo.—**W. E. Crum**, Short Texts from the Coptic Ostraca and Papyri, edited and indexed. London, 1921, Milford. xii, 149 pp. 4to. 16s.

Hedwig Fechtmeier, Kleinplastik der Aegypter. (Die Kunst des Ostens,

- Bd. 3.) Berlin, 1921, Cassirer. 40 pp.; 158 pls. 8vo. 70 M.
- Hermann Grapow**, *Vergleiche und andere bildliche Ausdrücke im Ägyptischen*. (Alt. Or. XXI, Heft 1-2.) Leipzig, 1920, Hinrichs. 39 pp. 8vo. 2.40 M.
- R. Hichens**, *Egypt and its Monuments*. Illustrated by Jules Guérin. London, 1921, Hodder and Stoughton. 282 pp.; pls. 8vo. 42s.
- Journal of the Manchester Egyptian and Oriental Society**, No. IX. London, 1921, Longmans, Green. 56 pp. 5s.—**H. Junker**. Bericht über die Grabungen der Akademie der Wissenschaften in Wien auf den Friedhöfen von El-Kubanieh-Nord, Winter 1910-1911. (Akad. d. wissens. in Wien, Philos.-hist. Kl. Denkschriften, 64, Abh. 3. Vienna, 1921, Hölder. viii, 181 pp.; 24 pls.; plan. 4to. 100 M.
- H. Junker**, *Papyrus Londorfer I: Ein Ehepakt aus der Zeit des Nektanebos*. (Sitzb. Akad. der Wissens. in Wien, Philos.-hist. Kl., 197, Abh. 2.) Vienna, 1921, Hölder. 56 pp. 8vo. 20 M.
- Hermann Kees**, *Studien zur ägyptischen Provinzialkunst*. Leipzig, 1921, Hinrichs. viii, 32 pp.; 9 pls. 15.20 M. 8vo.—**A. F. Kendrick**, *Catalogue of Textiles from Burying Grounds of Egypt. Vol. I: Graeco-Roman Period. Vol. II: Period of Transition and of Christian Emblems*. (Victoria and Albert Museum.) London, 1921, H. M. Stationer's Office. 153, 188 pp. 8vo.
- S. A. B. Mercer**, *Ethiopic Grammar, with Chrestomathy and Glossary*. Oxford, 1920, University Press. 116 pp. 7s. 6d.—**M. Morgensen**, *Le mastaba égyptien de la Glyptothèque ny Carlsberg*. Copenhagen and London, 1921, Gyldendal. 21s.
- M. Naville**, *L'évolution de la langue égyptienne et les langues sémitiques*. Paris, 1920, Geuthner.
- Friedrich Oertel**, *Die Liturgie: Studien zur ptolemäischen und kaiserlichen Verwaltung Aegyptens*. Leipzig, 1917, Teubner. viii, 452 pp. 8vo.—**Oxyrhynchus Papyri**, Part XV, edited with translation and notes by B. P. Grenfell and A. S. Hunt. London, 1921, Egypt Exploration Society. (Quaritch.) 250 pp. 4to. 42s.
- R. Pagenstecher**, *Nekropolis: Untersuchungen über Gestalt und Entwicklung der alexandrinischen Grabanlagen und ihrer Malereien*. Leipzig, 1919, Giesicke und Devrient. ix, 216 pp.; figs. Folio.—**D. Paton**, *Early Egyptian Records of Travel*, Vol. III. Oxford, 1921, Clarendon Press. 4to. 63s.—**B. Poertner**, *Die ägyptischen Totenstelen als Zeugen des sozialen und religiösen Lebens ihrer Zeit*. Paderborn, 1921, Schöningh. vi, 96 pp.; 5 pls. 10 M.—**Friedrich Preisigke**, *Griechische Papyrus der Universitäts- und Landesbibliothek zu Strassburg, herausgegeben und erläutert*. Band II: *Urkunden Nr. 81-125*. Leipzig, 1920, Hinrichs. iv, 88 pp.; 26 pls. Folio. 180 M.—**F. Preisigke**, *Sammelbuch griechischer Urkunden aus Ägypten*, I, 1. Strassburg, 1918, Trübner. 320 pp. 8vo.
- H. Ranke**, *Das Altägyptische Schlangenspiel*. (Sitzb. Heidelberger Akad. der Wissenschaften, 1920, Abh. 4-8.) Heidelberg, 1920, Winter. 30 pp.; figs. 8vo. 2.40 M.—**F. S. Richards**, *Note on the Age of the Great Temple at Karnak, as determined by the orientation of its axis*. Cairo, 1921, Govt. Press. 4to. P. T. 10.—**Gunther Roeder**, *A Short Egyptian Grammar*. Translated from the German by S. A. B. Mercer. New Haven, 1920, Yale University Press. xiv, 88 pp.; 56 pls. \$2.50.—**Sir M. A. Ruffer**, *Studies in the Palaeopathology of Egypt*, ed. R. L. Moodie. Chicago, 1921, University of Chicago Press. xx, 366 pp.; pls. 4to. \$7.50.
- C. Sachs**, *Die Musikinstrumente des alten Ägyptens*. (Staatliche Museen zu Berlin, Mitteilungen aus der ägyptischen Sammlung, III.) Berlin, 1921, Curtius. 92 pp.; 11 pls.; 121 figs. 360 M.—**H. Schäfer**, *Das Bildnis im alten Ägypten*. (Bibliothek der Kunstgeschichte, Bd. 2.) Leipzig, 1921, Seemann. 12 pp.; 20 pls. 8vo. 8 M.—**H. Schäfer**, *Sinn und Aufgaben des Ägyptischen Museums zu Berlin*. (Alt. Or. XXII.) Leipzig, 1920, Hinrichs. 31 pp.; plans. 8vo. 3.20 M.—**W. Schubart**, *Das alte Ägypten und seine Papyrus*. Berlin, 1921, Vereinigung wissens. Verleger. 34 pp.; 5 figs. 8vo. 4 M.—**K. Sethe**, *Demotische Urkun-*

- den zum ägyptischen Bürgschaftsrecht vorzüglich der Ptolemäerzeit. (Abb. Sächs. Akad. d. Wiss., Philol.-Hist. Kl., Bd. XXXII, 1920.) Leipzig, 1920. Teubner. vi, 812 pp.; 68 pls. 31.80 M.—**Louis Speleers**, *Le Papyrus de Nefrenpet, un Livre des Morts de la 18. Dynastie aux Musées royaux du Cinquantenaire à Bruxelles*. Brussels, 1917, Vromant. 110 pp.; 29 pls. 4to.—**W. Spiegelberg**, *Ägyptische und andere Graffiti aus der thebanischen Nekropolis*. Heidelberg, 1921, Winters. viii, 176 pp.; 123 pls. 4to. and Folio. 1500 M.
- Sir H. Thompson and F. Ll. Griffith**, *The Magical Demotic Papyrus of London and Leiden*. 3 vols. Oxford, 1921, University Press. viii, 36, viii, 208, iv, 154 pp. 8vo. \$19.
- A. A. Wainwright**, *Balabish*. With a preface by T. Whittemore. (37th Memoir of the Egypt Exploration Society.) London, 1920, Allen and Unwin. 78 pp.; 28 pls.—**C. Wessely**, *Textus graeci papyrorum qui in libro "Papyrus Erzherzog Rainer—Führer durch die Ausstellung Wien, 1894" descripti sunt*. (Studien zur Palaeographie und Papyrologie, 20.) Leipzig, 1921, Haessel. 163 pp. 4to.—**H. E. Winlock**, *Papers of the Metropolitan Museum of Art, Vol. I, Part II*. (Descriptions of a series of bas-reliefs from the temple of Rameses I at Abydos.) New York, 1921, Metropolitan Museum of Art. 54 pp.; pls.; figs.; map. 8vo. \$3.50.
- F. Zimmermann**, *Die ägyptische Religion nach der Darstellung der Kirchenschriftsteller und die ägyptischen Denkmäler*. Paderborn, Schöningh. xvi, 201 pp. 20 M.

ORIENTAL ARCHAEOLOGY

- Alte Denkmäler aus Syrien, Palästina, und Westarabien. Berlin, 1918, Reimer. 109 pp.; 100 pls. Folio.—**T. W. Arnold and R. A. Nicholson**, eds., *A Volume of Oriental Studies presented to E. G. Browne*. Cambridge, 1922, University Press. viii, 500 pp.; 10 figs. 8vo.—**C. Autran**, *Tarkondemos, reflexions sur quelques éléments graphiques figurant sur le monument appelé "sceau de Tarkondemos"*. Paris, 1921–22, Geuthner. 384 pp. 4to. 40 fr.**
- W. Bachmann, C. Watzinger, T. Wiegand**, *Petra*. (Wissenschaftl. Veröffentl. des deutsch-türk. Denkmalschutz-Kommandos.) Berlin and Leipzig, 1921, A. de Gruyter and Co. 94 pp.; 2 pls.; 79 figs.—**Berichte des Forschungsinstituts für Osten und Orient, Band II. Leipzig, 1918, Harrassowitz. xv, 175 pp. 10 M.—**Berlin, Staatliche Museen**, *Mitteilungen aus der Vorderasiatischen Abteilung der Staatlichen Museen zu Berlin, Heft 1*. Ein altsyrisches Rechtbuch übersetzt von H. Eheloff. Berlin, 1922, Curtius. 8vo. 45 pp. 12 M.—**M. Blanckenhorn**, *Die Steinzeit Palästina-Syriens und Nordafrikas, Tl. 1*. (Das Land der Bibel, III, 5.) Leipzig, 1921, Hinrichs. 49 pp. 8vo. 1.20 M.—**Fritz Bodenheimer**, *Die Tierwelt Palästinas, Teile I und II*. (Land der Bibel, III, 1–2.) Leipzig, 1920, Hinrichs. 38, 37 pp. 8vo. 2.40 M.—**E. S. Bouchier**, *A Short History of Antioch, 300 B.C.–A.D. 1268*. Oxford, 1921, Blackwell. 324 pp.; 4 pls. 8vo. 12s 6d.—**British Museum**, *Cuneiform Texts from Babylonian Tablets in the British Museum, Part 35*. Oxford, 1921, Clarendon Press. Various paging; pls. Folio. \$3.40.—**British Museum**, *Cuneiform Texts from Cappadocian Tablets in the British Museum, Part I*. London, 1921, British Museum. 26 pp.; 53 pls. Folio.—**British Museum**, *Hittite Texts of the Cuneiform Character, from Tablets in the British Museum*. Oxford, 1921, Clarendon Press. Folio. \$6.75.—**E. A. Wallis Budge**, *The Babylonian Story of the Deluge, and the Epic of Gilgamesh; with an account of the Royal Libraries of Nineveh*. London, 1921, British Museum. 58 pp.; figs. 8vo. \$0.45.**
- A. T. Clay**, *The Empire of the Amorites*. (Yale Oriental Series, Researches, Vol. IV.) New Ha-

- ven, 1919, Yale University Press. 8vo. \$2.50.—**G. Contenau**, Tablettes cappadociennes. (Musée du Louvre, Textes cuneiformes. Tome IV.) Paris, 1920, Geuthner. 18 pp.; 70 pls.—**P. Cruevilhier**, Les principaux résultats des nouvelles fouilles de Suze. Paris, 1921, Geuthner. 7.50 fr.
- T. Dombart**, Der Sakralturm, I Teil: Zikkurrat. Munich, 1920, Beck. iii, 95 pp.; pl.; 43 figs. 8vo. 10 M.
- Erich Ebeling**, Keilschrifttexte aus Assur religiösen Inhalts. (Wissenschaftl. Veröffentl. der Deutschen Orient-Gesellschaft, XXXIV, Heft 1-2.) 5. Heft=II Band, 1. Heft; 6. Heft=II Band, 2. Heft. Leipzig, 1920, Hinrichs. 160 pp. 8vo. 70.40 M.
- E. Forrer**, Keilschrifttexte aus Boghazköi, Heft 4. (Wissenschaftl. Veröffentl. der Deutschen Orient-Gesellschaft, XXX, Heft 4.) Leipzig, 1920, Hinrichs. 80 pp. 8vo. 40 M.—**E. Forrer**, Die Provinzeinteilung des assyrischen Reiches. Leipzig, 1920, Hinrichs. 149 pp.; 2 maps. 8vo. 25 M.
- C. R. Gregory**, Zu Fuss in Bibellanden (Land der Bibel, II, 6.) Leipzig, 1919, Hinrichs. 44 pp. 8vo. 1.20 M.—**Hermann Guthe**, Gerasa. (Land der Bibel, III, 1-2.) Leipzig, 1919, Hinrichs. 69 pp. 8vo. 2.40 M.
- Percy Handcock**, The Code of Hammurabi. (Texts for Students, No. 15.) London, 1920, Macmillan. 36 pp. 12mo. \$0.35.—**Percy Handcock**, Selections from the Tell-el-Amarna Letters. (Texts for Students, No. 16.) London, 1920, Macmillan. 16 pp. 12mo. \$0.15.—**Karl Holzhey**, Assur und Babel in dem Kenntnis der griechisch-römischen Welt. Freising, 1921, Datterer. 53 pp. 8vo.—**D. G. Hogarth**, Arabia. Oxford, Clarendon Press. 139 pp. 8vo. 7s 6d.—**Fritz Hommel**, Beiträge zur morgenländischen Altertumskunde. 1: Zu den babylonischen Grenzsteinsymbolen. 2: Die beiden ältesten babylonischen und ägyptischen Heiligtümer. Munich, 1920, G. Franzische Buchhandlung. 32 pp.; figs. 4to. 26.70 M.—**Friedrich Hrozný**, Über die Völker und Sprachen des alten Chatti-Landes. Hethitische Könige. Zwei Aufsätze. (Boghazköi-Studien, Heft 5.) Leipzig, 1920, Hinrichs. 32 pp. 8vo. 8 M.
- M. Jastrow and A. T. Clay**, An Old Babylonian Version of the Gilgamesh Epic. (Yale Oriental Series, Researches, Vol. IV, 3.) New Haven, 1920, Yale University Press. 106 pp.; 7 pls. 8vo. \$3.75.
- H. v. Kiesling**, Orientfahrten zwischen Ägeis und Zagros. Leipzig, 1921, Dieterich. viii, 276 pp.; 16 pls.; map. 65 M.—**S. Killermann**, Die Blumen des heiligen Landes. Leipzig, 1917, Hinrichs. 169 pp.; 5 pls.; 60 figs. 8vo. 6 M.—**G. A. F. Knight**, Nile and Jordan: an Archaeological History of the Interrelations between Egypt and Palestine from the Earliest Times to the Fall of Jerusalem in A.D. 70. London, 1921, J. Clarke. xii, 572 pp.; 5 maps. 36s.
- S. Langdon**, Le poème sumérien du paradis, du déluge et de la chute de l'homme. Paris, 1919, Leroux. x, 269 pp.; 11 pls.—**J. Lewy**, Untersuchungen zur Akkadischen Grammatik, I: Das Verbum in den "Altassyrischen Gesetzen." (Berliner Beiträge zur Keilschriftforschung, I, 4.) Berlin, 1921, Ebeling. 96 pp.—**E. Lindl**, Der Priester und Beamtentum der altbabylonischen Kontrakte. Paderborn, Schöningh. x, 514 pp. 50 M.
- J. B. Nies**, Ur Dynasty Tablets: texts chiefly from Tello and Drehem, written during the reigns of Dungi, Bur-Sin, Gimil-Sin, and Ibi-Sin. Introduction, catalogue, translations, lists, etc. With an appendix by F. Hommel. (Assyriologische Bibliothek, Bd. XXV.) Leipzig, 1920, Hinrichs. viii, 224 pp.; 64 pls.; figs. 4to. 50 M.
- T. P. Paffrath**, Zur Götterlehre in den altbabylonischen Königsinschriften. Paderborn, Schöningh. xvi, 226 pp. 27 M.—**Palästina**, Bilder von Land und Leben, mit einer Einleitung von Moses Calvary. Berlin, 1921, Ostertag. 8 pp.; 57 figs. 4to.—**Palästina**, Jahrbuch des Deutschen Evangelischen Instituts für Altertumswissenschaft des Heiligen Landes zu Jerusalem, hrsg. von G. Dalman. 16. Jahrg. 1920. Berlin, 1921, Mittler. 48 pp.; 4 pls.; 9 figs. 8.25 M.—**John P. Peters**, Bible and Spade. New

- York, 1922, Scribner. xii, 239 pp. Svo. \$1.75.—**Johannes Pinckert**, Hymnen und Gebete an Nebo. (Leipziger Semitische Studien, III, Heft 4.) Leipzig, 1920, Hinrichs. iii, 32 pp. Svo. 6 M.—**Arno Poebel**, Sumerische Studien. (Mitt. Vorderas. Ges. XXVI, 1921, Heft. 1.) Leipzig, 1921, Hinrichs. 64 pp. Svo. 10 M.
- W. Reimpell**, Geschichte der babylonischen und assyrischen Kleidung. Berlin, 1921, Curtius. xii, 82 pp.; 45 figs. 4to. 100 M.
- F. Sarre**, Denkmäler persischer Baukunst, T. 1: Konia. Seldschukige Baudenkmäler. Berlin, 1921, Wasmuth. iv, 30 pp.; 12 pls.; figs. 4to. 400 M.—**V. Scheil**, Recueil de lois assyriennes. Texte assyrien en transcription avec traduction française et index. Paris, 1921, Geuthner. 24 fr.—**A. Schneider**, Die sumerische Tempelstadt. Essen, 1920, G. D. Baedeker. 120 pp.—**H. P. Schollmeyer**, Sumerisch-babylonische Hymnen und Gebete an Samas. Paderborn, Schöningh. viii, 146 pp. 15 M.—**Otto Schroeder**, Keilschrifttexte aus Assur verschiedenen Inhalts. (Wissenschaftl. Veröffentlich. der Deutschen Orient-Gesellschaft, XXXV.) Leipzig, 1920, Hinrichs. xxviii, 124 pp. Svo. 80 M.—**Sidney Smith**, The First Campaign of Sennacherib, King of Assyria, B.C. 705–681. London, 1921, Luzac. vi, 90 pp. Svo. 30s.—**Ferdinand Sommer**, Hethitisches. (Boghazköi Studien, Heft 4.) Leipzig, 1920, Hinrichs. 23 pp. Svo. 6 M.
- R. Campbell Thompson**, The British Museum Excavations at Abu Shahrain in Mesopotamia in 1918. Oxford, 1921, published for the Society of Antiquaries of London, by F. Hall. 101, 144 pp.; figs. 4to.
- A. Ungnad**, Altbabylonische Briefe aus dem Museum zu Philadelphia. Stuttgart, 1920, Enke. 144 pp. Svo.—**A. Ungnad**, Die Religion des alten Babylon. Jena, 1921, Diederichs.
- D. Völter**, Die Patriarchen Israels im Licht der ägyptischen Mythologie. 2. Aufl. Leipzig, 1921, Hinrichs. vii, 113 pp. Svo. 12 M.
- W. H. Ward**, Cylinders and Other Ancient Oriental Seals in the Library of J. Pierpont Morgan. New Haven, 1920, Yale University Press. 129 pp.; pls. \$0.60.—**C. Watzinger** and **K. Wulzinger**, Damaskus, die antike Stadt. (Wissens. Veröffentlich. d. deutsch-türk. Denkmalschutz-Kommandos, 4.) Berlin, 1921, Vereinigung wissens. Verleger. viii, 112 pp. Folio. 120 M.—**Otto Weber**, Altorientalische Siegelbilder. Two volumes. (Alt. Or. XVII, XVIII.) Leipzig, 1920, Hinrichs. xvi, 250 pp.; 596 figs. Svo. 37.60 M.—**T. Wiegand** (ed.), Baalbek, Bd. I. By B. Schulz and H. Winnefeld. Berlin and Leipzig, 1921, Vereinigung wissens. Verleger, W. de Gruyter and Co. xvii, 130 pp.; 135 pls.; 89 figs. 400 M.—**P. M. Witzel**, Der Drachenkämpfer Ninib. (Keilschriftliche Studien, Heft 2.) Fulda, 1920, Fuldaer Aktien-Druckerei. viii, 282 pp.; 4 pls. Svo. 25 M.

CLASSICAL ARCHAEOLOGY

GREEK AND ROMAN

- (Works treating of the monuments of the Greeks and Romans, but not exclusively of those of either.)
- O. Gruppe**, Geschichte der klassischen Mythologie und Religionsgeschichte. Leipzig, 1921, Teubner. viii, 248 pp.
- Harvard Studies in Classical Philology**, Vol. XXXII. Cambridge, Mass., 1921, Harvard University Press. 183 pp. Svo.—**Paul**

- Herrmann**, Denkmäler der Malerei des Altertums, XV. Munich, 1917, Bruckmann. Pp. 187–200; 10 pls. Folio.
- W. H. S. Jones** (ed.), The Year's Work in Classical Studies, 1920. Bristol. 1921, Arrowsmith. 99 pp. Svo. 3s. 6d.
- Wilhelm Klein**, Vom antiken Rokoko. Vienna, 1921, Hölzel. 199 pp.; 5 pls.; figs. Svo. 45 M.
- Alfred Laumonier**, Catalogue des terres cuites au Musée Archéolo-

- gique de Madrid. Paris, 1921, de Boccard. xi, 258 pp.; 134 pls. 8vo. 25 fr.
- Arthur Mentz**, Geschichte der griechisch-römischen Schrift bis zur Erfindung des Buchdrucks mit beweglichen Lettern. Leipzig, 1920, Dieterich. 28 M.
- K. A. Neugebauer**, Antike Bronze-statuetten, 1-5. (Kunst und Kultur, Bd. 1.) Berlin, 1921, Schoetz und Parrhysius. 132 pp.; 18 pls. 8vo. 50 M.
- Papiri greci e latini**, VI. Florence, 1920, Ariani. xix, 221 pp. 8vo. 100 fr.—**A. F. Pauly** and **G. Wissowa**, Real-Encyclopädie der classischen Altertumswissenschaft. Halbbd. 21: Katoikoi-Komödie. Stuttgart, 1921, Metzler. 1280 pp. 4to. 100 M.
- Reale Galleria degli Uffizi**, Elenco delle sculture. Florence, 1921, Giannini. 66 pp.; 48 pls. 16mo. 3.50 fr.—**Adolphe Reinach**, Recueil Milliet: Textes grecs et latins relatifs à l'histoire de la peinture ancienne. Vol. I. Paris, 1921, Klincksieck. 430 pp. 8vo. 30 fr.—**W. H. Roscher**, Ausführliches Lexikon der griechischen und römischen Mythologie. Supplement: Geschichte der klassischen Mythologie und Religionsgeschichte während des Mittelalters im Abendland und während der Neuzeit. Leipzig 1921, Teubner. viii, 248 pp. 8vo.
- Edouard Schmidt**, Archaische Kunst in Griechenland und Rom. Munich, 1921, Heller. 24 pls. 80 M.
- GREEK**
- (Including also titles of works relating to Pre-Hellenic inhabitants of Greece and to kindred peoples, and to monuments of Greek art wherever found.)
- I. GENERAL AND MISCELLANEOUS**
- Annuario della R. Scuola Archeologica di Atene e delle Missioni Italiane in Oriente**, Vol. III, 1916-1920. Bergamo, 1921, Istituto Italiano d'Arti Graphiche. 298 pp.; 11 pls.; 151 figs. 4to.
- D. Baud-Bovy** and **F. Boissonas**, Des Cyclades en Crète au gré du vent, avec une préface par G. Fougères. Notices archéologiques par G. Nicole. Geneva, 1919, Boissonas. 157 pp.; pls. Folio.—**F. Bechtel**, Die historischen Personennamen des Griechischen bis zur Kaiserzeit. Halle, 1917, Niemeyer. xvi, 637 pp. 8vo.—**Friedrich Bilabel**, Die ionische Kolonisation: Untersuchungen über die staatliche und kulturelle Organisation der ionischen Kolonien und ihre Beziehungen zu den Mutterstädten. Leipzig, 1920, Dieterich. viii, 260 pp. 28 M.—**Carl W. Blegen**, Korakou: a Prehistoric Settlement near Corinth. Boston. and New York, 1921, American School of Classical Studies at Athens. xvi, 139 pp.; 8 pls.; 135 figs. 4to. \$5.—**H. T. Bossert**, Alt-Kreta: Kunst und Kunstgewerbe im ägäischen Kulturkreise. Berlin, 1921, Wasmuth. 66 pp.; 215 pls. 8vo. 120 M.—**George W. Botsford**, Hellenic History. New York, 1922, Macmillan. 520 pp.; figs.; maps. 8vo. \$4.—**Lida R. Brandt**, Social Aspects of Greek Life in the Sixth Century B.C. Philadelphia, 1922, T. C. Davis. 108 pp. 8vo. \$2.—**Alice Brenot**, Recherches sur l'éphébie attique et en particulier sur la date de l'institution. (Bibliothèque de l'École des Hautes Études, Sciences historiques et philologiques, No. 229.) Paris, 1920, Edouard Champion. 52 pp. 8vo.
- Rhys Carpenter**, The Esthetic Basis of Greek Art of the Fifth and Fourth Centuries B.C. (Bryn Mawr Notes and Monographs, No. 1.) Bryn Mawr, Pennsylvania, 1921, Bryn Mawr College. 263 pp. \$1.50. 16mo.—**Stanley Casson**, Catalogue of the Acropolis Museum, Vol. II. Sculpture and Architectural Fragments; with a section upon the Terracottas, by Dorothy Brooke. Cambridge, 1921, University Press. 459 pp.; 124 figs. 8vo. 36s.
- L. R. Farnell**, Greek Hero Cults and Ideas of Immortality. Oxford, 1921, Clarendon Press. xvi, 434 pp. 8vo. 18s.
- C. Georgin**, Homère illustré. Paris, 1921, Hatier. viii, 446 pp.
- A Handbook of Greece**, Vol. I. The Mainland of Old Greece and Certain Neighbouring Islands. Compiled by the Geographical Section

- of the Naval Intelligence Division, The Admiralty. London, 1920, H. M. Stationer's Office. 782 pp.; 19 pls.; 2 maps.—**A Handbook of Macedonia and Surrounding Territories.** Compiled by the Geographical Section of the Naval Intelligence Division, The Admiralty. London, 1920, H. M. Stationer's Office. 524 pp.; 5 maps and plans. 8vo.—**Jane E. Harrison**, *Epilegomena to the Study of Greek Religion.* Cambridge, 1921, University Press. 40 pp. 8vo. 3s. 6d.—**Joseph Hazzidakis**, *Tylosos à l'époque minoenne, suivi d'une note sur les larnax de Tylosos*, traduit du grec par l'auteur avec la collaboration de L. Franchet. Paris, 1921, Geuthner. 96 pp.; 10 pls.; 48 figs. 8vo. 25 fr.
- H. R. James**, *Our Hellenic Heritage*, Vol. I. Part I, *The Great Epics*; Part II, *The Struggle with Persia.* London, 1921, Macmillan. Figs.; maps. 8vo. 6s.—**George Jeffrey**, *A Description of the Monuments of Cyprus.* Nicosia, 1918, Government Printing Office. 467 pp.; 5 pls.; 37 figs. 8vo. 7s. 6d.
- J. Keil**, *Führer durch Ephesos.* Vienna, 1915, Holder. 90 pp.; 46 figs.; 2 maps.
- K. Latte**, *Heiliges Recht: Untersuchungen zur Geschichte der sakralen Rechtsformen in Griechenland.* Tübingen, 1920, Mohr. 8vo. 14 M.—**R. W. Livingstone**, ed., *The Legacy of Greece: Essays by Gilbert Murray, W. R. Inge, J. Burnet, Sir T. L. Heath, D'Arcy Thompson, Charles Singer, R. W. Livingstone, A. Toynbee, A. E. Zimmern, Percy Gardner, Sir Reginald Blomfield.* Oxford, 1921, Clarendon Press. xii, 424 pp. 8vo. 7s. 6d.
- Max Neubert**, *Die dorische Wanderung in ihren europäischen Zusammenhängen: das prähistorische Eröffnungsstück zur indogermanischen Weltgeschichte.* Stuttgart, 1920, Koch und Neff. 127 pp. 8vo. 10 M.—**Martin P. Nilsson**, *Olympen: en framställning av den klassiska mytologien.* Vols. I and II. Stockholm, 1918–19, H. Geber.
- Raffaele Pettazzoni**, *La religione nella Grecia antica fino al Alessandro.* Bologna, 1921, Zanichelli. 416 pp. 8vo. 20 L.—**C. Praschniker**, *Kretische Kunst.* (Bibliothek der Kunstgeschichte, Bd. 7.) Leipzig, 1921, Seemann. 12 pp.; 20 pls. 8vo. 8 M.
- Eleanor F. Rambo**, *Lions in Greek Art.* Bryn Mawr, 1920, Bryn Mawr College. 54 pp. 8vo.—**Carl Robert**, *Die griechische Helden-sage*, Buch 2; Buch 3, 1. (Preller, *Griechische Mythologie*, 4 Aufl.) Berlin, 1921, Weidmann. viii pp.; pp. 421–968. 8vo.
- A. von Salis**, *Die Kunst der Griechen*, 2. Aufl. Leipzig, 1922, Hirzel. x, 303 pp. 4to. 66 M.—**Bernhard Schweitzer**, *Herakles: Aufsätze zur griechischen Religions- und Sagen-geschichte.* Tübingen, 1922, Mohr. 247 pp.; 12 pls.; 38 figs. 4to.—**John A. Scott**, *The Unity of Homer.* Berkeley, California, 1921, University of California Press. 275 pp. 8vo. \$3.25.
- F. J. Tausend**, *Studien zu attischen Festen.* Würzburg, 1921, Becker. 36 pp. 8vo.
- P. N. Ure**, *The Greek Renaissance.* London, 1921, Methuen. 175 pp.; 12 pls. 8vo. 6s.—**P. N. Ure**, *The Origin of Tyranny.* Cambridge, 1921, University Press. xii, 374 pp.; figs. 8vo. 35s.
- E. M. Walker**, *Greek History, its problems and meaning.* Oxford, 1921, Blackwell. 165 pp. 12mo. 3s. 6d.—**Ludwig Weniger**, *Alt-griechischer Baumkultus.* Leipzig, 1919, Dieterich. 5 M. 50.

II. GREEK ARCHITECTURE

- Joseph T. Clarke, Francis H. Bacon, and Robert Koldewey**, *Investigations at Assos: Drawings and Photographs of the Buildings and Objects discovered during the Excavations of 1881–1882–1883*, edited with explanatory notes by Francis H. Bacon. Cambridge, Mass., 1921, Archaeological Institute of America. 313 pp.; numerous plates, figures and plans, not numbered. Folio. \$40.
- Sir Arthur Evans**, *The Palace of Minos, a comparative account of the successive stages of the early Cretan civilization as illustrated by the discoveries at Knossos.* Vol. I: *The Neolithic and Early and Middle Minoan Ages.* London, 1921, Macmillan. x, 721 pp.; 12 pls.; 542 figs.; plans. 4to. £6 6s.

A. D. Fraser, *The Age of the Extant Columns of the Olympieum at Athens*. (Reprint from *The Art Bulletin*, IV, 1921.) 14 pp.; 2 pls. 8vo.—A. Frickenhaus, *Die altgriechische Bühne*. Strassburg, 1917, Trübner. viii, 131 pp.; pls. 8vo.

A von Gerkan, *Das Theater von Priene, als Einzeldarstellung und in seiner Bedeutung für das hellenistische Bühnenwesen*. Munich, 1921, Verlag für praktische Kunstwissenschaft. 132 pp.; 36 pls.; 11 figs. Folio.

S. B. Murray, *Hellenistic Architecture in Syria*. Oxford, 1921. Clarendon Press. 8vo.

G. Rodenwaldt, *Der Fries des Megarons von Mykenai*. Halle, 1921, Niemeyer. viii, 72 pp.; 5 pls.; 30 figs. 4to. 100 M.

Max Theuer, *Der griechisch-dorische Peripteraltempel: ein Beitrag zur antiken Proportionslehre*. Berlin, 1818, Wasmuth. iv, 66 pp.; 43 pls. 4to.

III. GREEK SCULPTURE

Ludwig Curtius, *Das griechische Grabrelief*. (Wasmuths Kunsthefte, Heft 3.) Berlin, 1920, Wasmuth. 4 pp.; 13 pls. 8vo.

A. Hahr, *Bewegungsgestalten in der griechischen Skulptur*. Strassburg, 1917, Heitz. vii, 79 pp.; figs. 4to.—R. Heberdey, *Altattische Porosskulptur*. Ein Beitrag zur Geschichte der archaischen griechischen Kunst. Vienna, 1919, Hölder. xii, 246 pp.; pls. Folio.

Salvatore Mirone, *Mirone d'Eleutere*. Catania, 1921, F. Tropea. 136 pp.; 11 pls.

Frederik Poulsen, *Ikonographische Miscellen*. (Kgl. Danske Videnskabernes Selskab., Historisk-filologiske Meddelelser. IV, 1.) Copenhagen, 1921, A. F. Høst. 94 pp.; 35 pls.; 21 figs. 8vo.

G. Rodenwaldt, *Griechische Porträts aus dem Ausgang der Antike*. (Berlin. Winkelmannsprogramm, 76.) Berlin, 1919, W. de Gruyter. 30 pp.; figs. 4to.

IV. GREEK VASES

Ernst Buschor, *Greek Vase Painting*. Translated by G. C. Richards. London, 1921, Chatto and Windus. 180 pp.; 96 pls. 8vo. 25s.

V. GREEK INSCRIPTIONS

A. Alt, *Die griechischen Inschriften der Palaestina Tertia*. (Wissenschaftl. Veröffentlich. des deutsch-türk. Denkmalschutz-Kommandos, Heft 2.) Berlin and Leipzig, 1921, W. de Gruyter. 62 pp.; 10 figs.

J. Kirchner, *Inscriptiones Graecae*, IV. 1. Berlin, 1918, Reimer. Folio.

VI. GREEK COINS

G. F. Hill, *A Catalogue of the Greek Coins of Arabia, Mesopotamia, and Persia*. London, 1921, British Museum. ccix, 359 pp.; 55 pls. 8vo. 70s.

E. T. Newell, *Alexander Hoards, I: Introduction and Kyparissia Hoard*. (Num. Not., No. 3.) New York, 1921, American Numismatic Society. 21 pp.; 2 pls. 16mo. \$0.50.

E. T. Newell, *The First Seleucid Coinage of Tyre*. (Num. Not., No. 10.) New York, 1921, American Numismatic Society. 40 pp.; 8 pls. 16mo. \$1.—E. T. Newell, *The Octobols of Histiaea*. (Num. Not., No. 2.) New York, 1921, American Numismatic Society. 25 pp.; 2 pls.; fig. 16mo. \$0.50.

ROMAN

(Including also titles of works relating to the monuments of the Etruscans and other people who inhabited Italy before or contemporaneously with the Romans, as well as to Roman monuments outside of Italy.)

I. GENERAL AND MISCELLANEOUS

Louise E. W. Adams, *A Study in the Commerce of Latium, from the Early Iron Age through the Sixth Century B.C.* (Smith College Classical Studies, No. 2.) Northampton, Mass., 1921, Smith College. 84 pp. 8vo. \$0.75.

F. Behn, *Kataloge des römisch-germanischen Centralmuseums (Mainz): Italische Altertümer vorhellenistischer Zeit*. Mainz, 1920, Wilckens. iv, 172 pp.; 12 pls. 8vo. Cannstadt zur Römerzeit, Neue archäologische Forschungen und Funde, herausgegeben vom Württembergischen Landesamt für Denkmalpflege, Tl. 1. Stuttgart, 1921,

- Schweizerbart. 75 pp.; 16 pls.; 8 figs. 4to. 140 M.—**L. Constans**, *Arles Antique*. Paris, 1921, de Boccard. xvi, 426 pp.; 16 pls. 25 fr.—**Franz Cumont**, *Die orientalischen Religionen im römischen Heidentum*. Deutsche Ausgabe von Georg Gehrich. Leipzig, 1921, Teubner. 340 pp. Svo. 6 M.
- R. Forrer**, *Das römische Zabern (Tres Tabernae)*. Stuttgart, 1918, Kohlhammer. 153 pp.; 19 pls.; 87 figs. Svo.—**Tenney Frank**, *An Economic History of Rome to the End of the Republic*. Baltimore, 1920, Johns Hopkins University Press. xi, 310 pp. Svo.—**Führer durch die Sammlungen des Römer Museums in Hildesheim. Hildesheim, 1919. 40 pp.; 23 figs. Svo.**
- H. Lehner**, *Die antiken Steindenkmäler des Prov.-Museums in Bonn*. Bonn, 1918, Cohen. viii, 512 pp.; 140 figs. Svo.
- G. L. Martelli**, *Lingua etrusca: grammatica, testi, glossario*. Perugia, 1920, Bartelli. 91 pp. Svo. 10 fr.—**C. Mehlis**, *Des Claudius Ptolemaeus "Geographia" und die Rhein-Weser Landschaft*. Munich, 1918, Lindauer. 73 pp.; figs. Svo.
- Paolo Orsi**, *Gli Scavi intornial'Athenaion di Siracusa negli anni 1912-1917*. (Reprint from *Mon. Ant. XXV*, 1919.) Rome, 1919, R. Accademia dei Lincei. 414 pp.; 26 pls.; 268 figs. 4to.
- F. G. de Pachtère**, *La table hypothécaire de Veleia: étude sur la propriété foncière dans l'Appennin de Plaisance*. (Bibliothèque de l'Ecole des Hautes Études, Sciences historiques et philologiques, No. 228.) Paris, 1920, Édouard Champion. 119 pp.; map. Svo.—**Ettore Pais**, *Fasti triumphales populi Romani*. Rome, 1920, Nardecchia. xxviii, clxviii, 546 pp.; 20 pls. Svo. 100 fr.—**L. Peserico**, *Ricerche di storia etrusca*. Vicenza, 1920, Galia. 320 pp. Svo. 25 fr.
- Frances E. Sabin**, *Classical Associations of Places in Italy*. Madison, Wisconsin, 1921, published by the author. 526 pp.; figs.; maps. Svo. \$5.—**Sir J. E. Sandys**, *A Companion to Latin Studies*, edited for the Syndics of the University Press. Third edition. Cambridge, 1921, University Press. xxxv, 891 pp.; figs. Svo. 36s.—**J. C. Stobert**, *The Grandeur that was Rome: a Survey of Roman Culture and Civilization*. Second edition, revised. Philadelphia, 1921, Lippincott. xxviii, 351 pp.; pls. Svo. \$7.50.
- J. I. S. Whitaker**, *Motya, a Phoenician Colony in Sicily*. London, 1921, Bell. xvi, 357 pp. Svo. 30s.—**G. Wilke**, *Archaeologische Erläuterungen zur Germania des Tacitus*. Leipzig, 1921, Kabitzsch. 84 pp.; 74 figs. Svo.
- ## II. ROMAN ARCHITECTURE
- Albert Ballu**, *Ruines de Djemila (antique Cuicul)*. Algiers, 1921, Carbonel. 73 pp.; pls. Svo.
- P. Sarasin**, *Über die Entwicklung des Triumphbogens aus dem Janustempel*. Innsbruck, 1921, Wagner. 16 pp.; 5 figs. Svo. 5 M.—**C. Schuchhardt**, *Die sogenannten Trajanswälle in der Dobrudscha*. Berlin, 1918, Reimer. 66 pp.; figs. Svo.
- ## III. ROMAN SCULPTURE
- K. A. Neugebauer**, *Asklepios: Ein Beitrag zur Kritik römischer Statuenkopien*. (Ber. Winckelmannsprogramm, 78.) Berlin, 1921, Vereinigung wissenschaftl. Verleger. 54 pp. 4to. 30 M.
- F. Prechac**, *Le colosse de Néron: son attitude et ses vicissitudes d'après les textes et les monnaies*. Paris, 1920, Rollin. 74 pp.; pls. Svo.
- F. Quilling**, *Die Jupitersäule des Samus und Severus: das Denkmal in Mainz und seine Nachbildung auf dem Saalburg*. Leipzig, 1918, Engelmann. 236 pp.; pls. 4to.
- Carl Robert**, *Die antiken Sarkophag-Reliefs, III. (Einzelmymen)*. Berlin, 1919, Grote. viii, 588 pp.; 144 pls. Folio.
- ## IV. ROMAN VASES AND PAINTING
- D. Comparetti**, *Le nozze di Bacco e Arianna, rappresentazione pittorica spettacolosa nel triclinio di una villa suburbana di Pompei, discripta e dichiarata*. Florence, 1921, LeMonnier. 66 pp.; 12 pls. 4to. 22 fr.
- Frederik Poulsen**, *Etruscan Tomb Paintings, their Subjects and Sig-*

nificance. Translated by Ingeborg Andersen. Oxford, 1921, Clarendon Press. x, 63 pp.; pls. 4to. 15s.

- H. Sumner, Descriptive Account of Roman Pottery Sites at Sloden and Black Heath Meadow, Linwood, New Forest. London, 1921, Chiswick Press. 45 pp.; plans. 8vo. 3s. 6d.

V. ROMAN INSCRIPTIONS

Corpus Inscriptionum Etruscarum, Suppl., Fasc. 1. Libri lintei Etrusci fragmenta Zagrabienensia, rec. G. Herbig, adiuvante O. A. Danielsson. Leipzig, 1921, Barth. vi, 33 pp.; pls. 3-12. 4to. 72 M.—Corpus

Inscriptionum Latinarum, Vol. I, pars posterior, editio altera, ed. E. Lommatsch. Berlin, 1918, Reimer. Pp. 367-716. Folio.

- P. Thomsen, Die römischen Meilensteine der Provinzen Syria, Arabia, und Palästina. (Reprint from Z. D. Pal. V., XL.) Leipzig, 1917, Hinrichs. iv, 102 pp.; 6 maps, 8vo. 10 M.

VI. ROMAN COINS

Agnes Baldwin, Five Roman Gold Medallions or Multiple Solidi of the Late Empire. (Num. Not., No. 6.) New York, 1921, American Numismatic Society. 103 pp.; 5 pls.; 6 figs. 16mo. \$1.50.

CHRISTIAN ART

I. GENERAL AND MISCELLANEOUS

Arte y decoración en España: arquitectura—arte decorativa. Tomo 1-3. Barcelona, 1917-1919. 252 pls. Folio.—M. Aubert and Hubert-Fillay, Menneton-sur-Cher: étude archéologique; notes et impressions. Blois, 1921, Jardin de la France. 16 pp.; figs.; plan. 8vo.—E. Aude, Le Musée d'Aix-en-Provence. Paris, 1921, Laurens. 64 pp.; 52 figs. 16mo.—Avignon, Villeneuve, Orange, Saint-Rémy, Arles, les Baux. Paris, 1921, Hachette. 64 pp.; 21 figs.; 6 plans; 3 maps. 16mo.

- A. A. Babeau, L'art de Champagne, région de Troyes. Paris, 1919, de Boccard. 59 pp.; 8 pls. 4to.—V. Balzano, Guglielmo di maestro Berardo di Gessopalena, miniatore del secolo XIV. Lanciano, 1920, Carabba. 61 pp.; 15 pls. 16mo. 4 fr.—C. Bandini, Spoleto. Bergamo, 1921, Istituto ital. d'arti grafiche. 138 pp.; 120 figs.; pl. 8vo.—Bau- und Kunstdenkmäler der freien und Hansestadt Lübeck. Band III. Lübeck, 1919-21, Nöhring. 575 pp.; pls. 8vo.—Bau- und Kunstdenkmäler d. Regierungsbezirks Wiesbaden. Band VI: Nachlese und Ergänzungen zu den Bänden I-V; Register. Frankfurt a.M., 1921, Keller. viii, 242 pp.; figs.; pls. 4to.—

Berlin, Staatliche Museen, Beschreibendes Verzeichnis der Gemälde im Kaiser-Friedrich Museum. 8. Aufl. Berlin, 1921, Vereinigung wissenschaftlicher Verleger. v, 646 pp.; plans. 8vo. 24 M.—Berlin, Staatliche Museen, Führer durch das Schlossmuseum. (Führer durch die staatl. Museen zu Berlin, 5.) Berlin, 1921, Deutscher Kunstverlag. 81 pp. 8vo. 6 M.—Berlin, Führer durch die staatlichen Museen zu Berlin. Die Schausammlung des Münzkabinetts im Kaiser-Friedrich Museum. Berlin, 1919, Reimer. 572 pp. 8vo.—C. H. Besnard, Le Pays basque français. Paris, 1921, Laurens. 64 pp.; 41 figs. 16mo.—Bibliothèque Nationale, Catalogue des ouvrages relatifs aux beaux-arts du cabinet des estampes de la Bibliothèque Nationale, série Y. Paris, 1921, Champion. xi, 372 pp. 8vo. 20 fr.—D. Bierens de Haan, Het houtsnijwerk in Nederland tijdens de Gothiek en de Renaissance. The Hague, 1921, Nijhoff. viii, 183 pp.; 155 pls. 4to. 25 guilders.—A. Blum, Histoire générale de l'art. Paris, 1921, Quillet. ii, 262 pp.; 8 pls.; figs. 4to.—J. Bonnerot, Autun. Paris, 1921, Laurens. 64 pp.; 36 figs. 16mo.—A. E. Brinckmann, Deutsche Stadtbaukunst in der Vergangenheit. 2. Aufl. Frankfurt a. M. 1921, Frankfurter Verlagsanstalt. vi, 199 pp.; 8 pls.;

- 136 figs. 8vo. 40 M.—**C. Bronner**, Münzenberg: ein kunstgeschichtlicher Führer durch Burg und Stadt. Friedberg, 1921, Scriba. 45 pp.; figs. 8vo.—**A. Broquelet**, Nos abbayes. Paris, 1920, Garnier. xxiv, 376 pp.; 72 figs. 16mo.—**A. Byne and Mildred Stapley**, Decorated Wooden Ceilings in Spain. (Hispanic Notes and Monographs.) New York, 1920, Putnam. xii, 112 pp.; figs. 16mo.
- J. Casier and P. Bergmans**, L'art ancien dans les Flandres (region de l'Escaut). Memorial de l'exposition retrospective organisée à Gand en 1913. II: Orfèvrerie, miniatures de manuscrits, tapisseries.) Brussels, 1921, Van Oest. iv, 142 pp.; 95 pls. Folio. 100 fr.—**S. Chauvet**, La Normandie ancestrale: ethnologie, vie, coutumes, meubles, utensiles, costumes, patois. Paris, 1921, Boivin. xvi, 184 pp.; 59 figs. 16mo.—**G. Chenesseau**, Sainte-Croix d'Orleans. Paris, 1921, Champion. 2 vols.; xviii, 388, 215 pp.; 214 pls.; 52 figs.; 6 plans. 4to.—**P. Clemen**, Kunstschutz in Kriege, I: Die Westfront; II: Italien, Osten, und Sudosten. Leipzig, 1919, Seemann. v, 148, vi, 221 pp.; 117, 224 figs. 4to.—**M. Creutz**, Kölner Kirchen. Cologne, 1921, Rheinland-Verlag. 86 pp.; 8 pls. 8vo.
- C. Davenport**, British Heraldry. London, 1921. viii, 222 pp.; 210 figs. 8vo.—**G. Dehio**, Geschichte der deutschen Kunst, Band II. Berlin and Leipzig, 1921, Vereinigung wissenschaftlicher Verleger. iv, 350 pp.; 435 figs. 4to.—**A. Del Vita**, La Pinacoteca d'Arezzo. Florence, 1921, Alinari. 29 pp.; 48 pls. 16mo.—**E. Derbais**, Les Monuments de la ville de Binche. Brussels, 1920, Vromant. 64 pp. 8vo.—**G. Des Marez**, Traité d'architecture dans son application aux monuments de Bruxelles. Brussels, 1921, Vromant. 300 pp.; pls. 8vo.—**R. Domenech and L. Perez Bueno**, Muebles antiguos españoles. Barcelona, 1921, Bayes. 60 pp.; 60 pls. 4to. 50 fr.—**Casimir de Dunilowicz**, La Lituanie artistique. Lausanne, 1919. Bureau d'information de Lituanie. 71 pp.; 20 pls. Folio.—**Dresden**, Die staatliche Gemäldegalerie zu Dresden. I Tl.: Alte Meister. Berlin, 1920. Bard. 59 pp.; 50 pls.
- Elenco degli edifici monumentali. XXVI** (provincia di Modena). Rome, 1820, tip. Unione. 109 pp. 16mo.—**Elenco degli edifici monumentali, XXXIII** (provincia di Pisa). Rome, 1921, tip. Unione. 202 pp. 16mo.—**Elenco degli edifici monumentali, LXII** (provincia di Catania). Rome, 1921, tip. Unione. 46 pp. 16mo.—**Isabelle Errera**, Répertoire des peintures datées, II. Brussels, 1921, Van Oest. Pp. 452-920. 8vo. 80 fr.—**N. v. Escher**, Alt-Zürich. Vienna, 1920, Amalthea. 76 pp.; figs. 8vo.
- J. Faber**, Le vieux village de Montmartre. Paris, 1920, Aligned. 71 pp.; figs. 4to.—**O. Fischel**, Dante und die Künstler. Berlin, 1921, Grote. v, 48 pp.; 67 figs. 4to. 60 M.—**A. Fliche**, Louvain. Paris, 1921, Laurens. 64 pp.; 36 figs. 8vo.
- I. Garber**, Kitzbühel und St. Johann in Tirol. Vienna, 1921, Hölzel. 17 pp.; 12 pls. 8vo.—**O. H. Giglioli**, Sansepolcro. Florence, 1921, Alinari. 72 pp.; 48 figs. 16mo.—**G. Goyau**, Sainte Lucie. Paris, 1921, Laurens. 64 pp.; 34 figs. 16mo.—**P. Gruyer**, Les Calvaires bretons. Paris, 1921, Laurens. 64 pp.; 50 figs. 16mo.
- W. H. Helm**, Homes of the Past: a sketch of domestic buildings and life in England from the Norman to the Georgian period. London, 1921, Lane. 166 pp.; 60 pls. 4to.—**A. Hoenig**, Deutscher Städtebau in Böhmen. Berlin, 1921, Ernst. iii, 113 pp.; 24 pls.; 13 figs.; plan. 4to.—**Louis Hourticq**, Les tableaux du Louvre: Histoire-guide de la peinture. Paris, 1921, Hachette. 176 pp.; 133 figs.; 2 plans. 16mo. 5 fr.
- S. Kambo**, Grottaferata. Bergamo, 1921, Istituto italiano d'arti grafiche. 130 pp.; 125 figs. 8vo.—**Kunstdenkmäler der Provinz Brandenburg**. Band VI, Teil 1 and 2: A. Götze, Die vor- und frühgeschichtliche Denkmäler des Kreises Lebus, der Stadt Frankfurt am Oder. Berlin, 1920, Voss. xxv, 82 pp.; 151 figs.; 21 pls. 8vo.—

- Kunstdenkmäler von Bayern.** Band III, Heft 20: A. Feulner, Bezirks-Amt Gemünden. Munich, 1920, Oldenbourg. v, 166 pp.; 112 figs.; 7 pls.; map. 8vo. Band III, Heft 21: K. Groeber, Bezirks-Amt Mellrichstadt. Munich, 1920, Oldenbourg. v, 174 pp.; 5 pls.; 166 figs.; map. 8vo.
- J. Langlade, Le Puy et le Velay.** Paris, 1921, Laurens. 120 pp.; 64 pls. 8vo.—**L. Lecestre, Saint Michel.** Paris, 1921, Laurens. 64 pp.; 41 figs. 16mo.—**E. Lundmark, Sveriges kyrkor: konsthistoriskt inventarium.** Stockholms kyrkor. Stockholm, 1920, Norstedt. 316 pp.; pls. 8vo.
- G. B. Manieri, Catalogo-inventario del Museo Civico Aquilano.** Aquila, 1920, Vecchioni. 64 pp. 8vo.—**H. Martin, Saint Hubert.** Paris, 1921, Laurens. 64 pp.; 36 figs. 16mo.—**J. Martin and J. Meurgey, Armorial du pays de Tournus.** Paris, 1920, Champion. 361 pp. 8vo.—**E. Mauceri, Siracusa.** Florence, 1921, Alinari. 55 pp.; 48 pls. 16mo.—**C. Mauclair and J. F. Bouchor, Venise.** Paris, 1921, Laurens. 178 pp.; 30 pls. 8vo.—**E. Meunier, Musée communal d'Ixelles.** Catalogue. Brussels, 1921, Huysmans. 523 pp. 8vo.
- Anita Orientier, Der seelische Ausdruck in der altdeutschen Malerei.** Munich, 1921, Delphin-Verlag. 220 pp.; 94 figs. 8vo. 45 M.
- R. Papini, La Pinacoteca di Brera.** Florence, 1921, Alinari. 16 pp.; 48 pls. 16mo.—**La peinture en Belgique, Le musée d'Anvers: tableaux anciens, I-II.** Brussels, 1921, Janssens. 24 pp.; 10 pls. 4to. 30 fr.—**P. Perali, Orvieto: note storiche di topografia, note storiche d'arte, dalle origini al 1800.** Orvieto, 1920, Marsili. 308 pp.; figs. 16mo.—**E. Poirée, Sainte Cécile.** Paris, 1921, Laurens. 64 pp.; 42 figs. 16mo.—**C. R. Post, A History of European and American Sculpture: the Early Christian period to the present day.** 2 vols. Cambridge, Massachusetts, 1921, Harvard University Press. 604 pp.; 205 pls. 8vo. \$15.—**H. Preuss, Das Bild Christi im Wandel der Zeiten.** Leipzig, 1921, Voigtländer. 96 pls. 8vo.—**N. Puccioni, La Vallombrosa.** Florence, 1921, Alinari. 43 pp.; 48 figs. 16mo.
- Louis Réau, L'art russe des origines à Pierre le Grand.** Paris, 1921, Laurens. xi, 387 pp.; 104 pls.; maps. 4to.—**S. Reinach, Catalogue illustré du Musée des antiquités nationales au château de Saint-Germain-en-Laye, II.** Paris, 1921, Musées nationaux. 364 pp.; 191 figs. 8vo.—**H. Reiners and W. Ewald, Kunstdenkmäler zwischen Maas und Mosel.** Munich, 1921, Bruckmann. vii, 248 pp.; figs. 4to. 75 M.—**K. E. Roberts and R. E. Roberts, Peterborough. (The Story of English Towns.)** London, 1920, Macmillan. x, 128 pp.; pl. 8vo. \$1.60.—**C. F. von Rumohr, Italienische Forschungen.** Frankfurt a. M., 1920, Frankfurter Verlags-Anstalt. xxxviii, 665 pp. 8vo.
- J. Sautel, Vaison et ses monuments.** Avignon, 1921, Seguin. xlvii, 64 pp.; figs. 8vo.—**K. H. Schäfer, Die kirchlichen Altertümer der Stadt Witzenhausen.** Witzenhausen, 1921, Weber. 65 pp. 8vo.—**J. V. Schlosser, Materialien zur Quellenkunde der Kunstgeschichte. Band VIII: Die italienische Ortsliteratur.** Vienna, 1920, Hölder. 112 pp. 8vo.—**K. Sluyterman, Huisraad en Binnenhuis in Nederland in vroegere eeuwen.** The Hague, 1918, Nijhoff. viii, 280 pp.; 450 figs. 4to. 22.20 guilders.—**A. Schnerich, Wiens Kirchen und Kapellen in kunst- und kulturgeschichtlicher Darstellung.** Vienna, 1921, Amalthea. xii, 234 pp.; 65 figs.; pl. 8vo.—**O. Schnettler, Kappenberg, ein Führer durch die Geschichte des Klosters und seine Denkmäler.** Dortmund, 1921, Lensing. 14 pp. 8vo.—**W. V. Seidlitz, Die Kunst in Dresden von Mittelalter bis zur Neuzeit.** Dresden, 1921, Baensch-Stiftung. Buch II: 1549-1586; iv, 162 pp.; 37 pls.; 24 figs.; Buch III: 1586-1625; xi, 126 pp.; 25 pls.; 10 figs.; 4to.—**G. Sifferlen, Histoire de Thann.** Histoire particulière. Strasbourg, 1921, Le Roux. 43 pp. 8vo.—**Solothurn, Katalog der Kunst-Abteilung im Museum der Stadt Solothurn.** Solothurn, 1921, Gi-

- gandet. 93 pp.; 28 pls. 8vo.—**W. R. Staehelin**, Wappenbuch der Stadt Basel, I, 4. Basel, 1921, Helbing und Lichtenhahn. 50 pls. 4to.—**E. Strohmer**, Aus Kitzbühels Umgebung. Vienna, 1921, Hölzel. 19 pp.; 10 pls. 8vo.—**E. Strohmer**, Mondsee und das Mondseeland. Vienna, 1921, Hölzel. 34 pp.; 1 fig.; 20 pls. 8vo.—**E. Strohmer**, Rattenberg in Tirol. Vienna, 1921, Hölzel. 22 pp.; 10 pls. 8vo.—**E. Strohmer**, St. Wolfgang am Abersee. Vienna, 1921, Hölzel. 18 pp.; 10 pls. 8vo.
- J. P. Thiis**, Samlede avhandlingar om nordisk konst. Kristiania, 1920, Gyldendal. 238 pp.; pls. Folio.
- P. Ueding**, Einführung in das Verständnis der Malerei. 2 vols.; Bielefeld, 1921, Velhagen und Klasing. xii, 261 pp.; 43 figs. 8vo.
- L. Venturi**, Lezioni di storia dell'arte. Turin, 1921, Castelletti. 576 pp. 8vo.—**T. de Veri**, Cuadros notables de Mallorca: Principales colecciones de pinturas que existen en la isla de Mallorca. Madrid, 1920, Sanz Calleja. 195, xx pp.; 17 pls. 8vo. 10 fr.—**A. Vermeylen**, Geschiedenis der europeesche plastiek en schilderkunst in middeleeuwen en nieuweren tijd. I: De middeleeuwen. Amsterdam, 1921, Maatschappij voor goede lectuur. 222 pp.; 82 pls. 8vo. 13.20 fr.—**C. Verschaeve**, Uren bevondering voor groote kunstwerken. Vols. IV and V. Bruges, 1921, Excelsior. 262 pp. 8vo.—**E. Voightlaender**, Zur Gesetzlichkeit der abendländischen Kunst. Bonn and Leipzig, 1921, Schroeder. viii, 132 pp. 4to.—**W. F. Volbach**, Elfenbeinarbeiten der Spätantike und des frühen Mittelalters. (Kataloge des Römisch-Germanischen Central-Museums, Nr. 7.) Mainz, 1916, Wilkens. 114 pp.; 12 pls.; 2 figs. 8vo. 2.50 M.
- W. Waetzold**, Deutsche Kunsthistoriker von Sandrart bis Rumohr. Leipzig, 1921, Seemann. 333 pp. 8vo. 45 M.—**J. Weingartner**, Die Kirchen Innsbrucks. Vienna, 1921, Hölzel. vii, 72 pp.; figs. 8vo.—**G. Y. Witkowski**, Les licenses de l'art chrétien. Paris, 1921, L'Édition. 172 pp.; 115 figs. pl. 8vo.
- II. EARLY CHRISTIAN, BYZANTINE AND MEDIAEVAL**
- M. Aubert**, Notre-Dame de Paris. Paris, 1920, Laurens. 227 pp.; 20 pls.; 30 figs.; plan. 8vo.
- W. G. Bell**, The Tower of London. London, 1921, Lane. 11 figs. 8vo.—**L. Beltrami**, La Basilica di S. Ambrogio di Milano. Milan, 1921, Bonomi. 19 pp.; 64 pls.; plan. 16mo.—**G. Bertoni**, Atlante storico-artistico del Duomo di Modena. Modena, 1921, Orlandini. viii, 95 pp.; figs. 8vo.—**H. Boissonnoit**, Histoire et description de la cathédrale de Tours. Paris, 1920, Frazier-Soye. 455 pp.; 36 pls.; 81 figs. Folio.—**M. Bruyère**, Guide de la cathédrale de Nîmes. Nîmes, 1920, Gellion and Bandini. 36 pp.; 6 figs.; plan. 8vo.—**T. F. Bumpus**, The Cathedrals of England and Wales. London, 1921, Laurie. 344 pp. 8vo.
- A. Chagny**, L'Abbaye de Cluny. Mâcon, 1921, Protat. 70 pp. 8vo.—**E. Chartraire**, La Cathédrale de Sens. Paris, 1921, Laurens. 124 pp.; 43 figs.; 1 plan. 16mo.—**C. Christensen and F. Beckett**, Tycho Brahe's Uraniborg and Stjerneborg on the Island of Hveen. Copenhagen, 1921, Marcus. 43 pp.; 9 pls. 21s.—**E. Cianetti**, Il campo di Siena e il palazzo pubblico. Florence, 1921, Alinari. 55 pp.; 48 pls. 16mo.—**M. Conway**, The Van Eycks and their followers. London, 1921, Murray. 552 pp.; 24 pls. 4to. 42s.—**L. Coutil**, Église mérovingienne ou carolingienne de Notre-Dame de Rugles (Eure). Evreux, 1921, Eure. 19 pp.; figs. 8vo.—**F. H. Crossley**, English Church Monuments, A.D. 1150-1550. An introduction to the study of tombs and effigies of the medieval period. London, 1921, Batsford. x, xiii, 274 pp. 4to. 40s.
- L. Dami**, Simone Martini. Florence, 1920, Alinari. 10 pp.; 48 pls. 16mo. 5 fr.—**U. Daubeny**, Ancient Cotswold Churches. Cheltenham, 1921. 224 pp.; figs.; 16 pls. 4to.—**C. Diehl**, Jérusalem. Paris, 1921, Laurens. 64 pp.; 38 figs. 16mo.—**J. Dölger**, IXΘΥΣ, Das Fischsymbol in frühchristlicher Zeit. II Bd.: Der heilige Fisch

- in den antiken Religionen und im Christentum. III Bd.: Tafeln. Münster in Westfalen, 1921, Aschendorff. 350 figs. 120 M.
- P. Durrieu**, La miniature flamande au temps de la cour de Bourgogne (1415-1530). Paris and Brussels, 1921, van Oest. 84 pp.; 103 pls. 4to.
- J. Ebersolt**, Sanctuaires de Byzance; recherches sur les anciens trésors des églises de Constantinople. Paris, 1921, Leroux. 163 pp.; 24 figs. 8vo.
- H. Fierens-Gevaert**, L'exposition VanEyck-Bouts à Bruxelles en 1920: Les retables de l'Agneau mystique et du Saint-Sacrement. Brussels, 1921, Van Oest. 24 pp.; pls. 4to. 20 fr.
- A. Gabriel**, La Cité de Rhodes, MCCCX-MDXXII: topographie; architecture militaire. Paris, 1921, de Boccard. xviii, 158 pp.; 35 pls.; 78 figs. 4to.—**J. Garber**, Die romanische Wandmalerei Tirols (Die Kunst in Tirol, Bd. 4). Vienna, 1921, Hölzel. 16 pp.; 10 pls. 8vo. 8 M.—**G. Van den Gheyn**, L'Art ancien à Gand; le retable de l'Agneau mystique des frères Van Eyck. Ghent, 1921, Vanderpoorten. 88 pp.; pls. 8vo.—**G. Van den Gheyn**, Dieu le Père figure-t-il sur le retable de l'Agneau mystique? Ghent, 1921, Siffer. 32 pp. 8vo.
- M. Gómez-Moreno**, Iglesias mozárabes. 2 vols. Madrid, 1920, Junta. xxiv, 408 pp.; 151 pls. 4to.
- Greek and Latin Illuminated Manuscripts**, X-XIII Centuries, in Danish Collections. London, 1921, Milford. 51 pp.; 64 pls. £10 10s.—**R. Guby**, Die niederbayerischen Donauklöster. Vienna, 1921, Hölzel. 40 pp.; figs.; 20 pls. 8vo.
- A. Haseloff**, Die Bauten der Hohentaufen in Unteritalien. Leipzig, 1920, Hiersemann. xxiv, 448 pp.; 61 pls.; 92 figs. Folio.—**August Heisenberg**, Aus der Geschichte und Literatur der Palaiologenzeit. (Sitz. Bayer. Akad., Philos.-philolog. u. hist. Klasse, 1920, 10 Abhandlung.) Munich, 1920, Verlag der Bayer. Akad. der Wissenschaften. 144 pp.; 3 pls. 8vo.
- W. Heywood**, A History of Pisa, Eleventh and Twelfth Centuries. Cambridge, 1921, University Press. x, 292 pp.; 16 figs.; map. 8vo.—**I. Hindenberg**, Benno II, Bischof von Osnabrück als Architekt. Strasbourg, 1921, Heitz. 107 pp.; 9 pls. 4to.—**F. E. Howard and F. H. Crowley**, English Church Woodwork. 1250-1550. London, 1920, Batsford. 357 pp.; 325 figs. 4to.
- H. H. Jewell and F. W. Hasluck**, The Church of Our Lady of the Hundred Gates (Panagia Hecatontapyliani) in Paros. Published on behalf of the Byzantine Research and Publication Fund. London, 1920, Macmillan. 78 pp.; 14 pls. 50s.
- F. Kaufmann**, Der Talisman Karls des Grossen: Kanonicus A. J. Bless und der Aachener Münster-schatz zur Zeit der französischen Revolution. Aachen, 1920, Creutzer. 112 pp.; figs. 8vo.—**Georgiana G. King**, The Way of St. James. 3 vols. (Hispanic Notes and Monographs, Peninsular Series, I.) New York, 1920, Putnam. 463, 514, 710 pp.; 36 figs. 16mo.
- J. G. Lafore**, Les Chapiteaux du cimetière à galeries de Saint-Saturnin et le faubourg de Vienne à Blois. Paris, 1920, Vincent. 32 pp.; figs. 8vo.—**V. Leroquais**, Bibliothèque de la Ville de Lyon: exposition de manuscrits à peintures du vi^e au xvii^e siècle. Lyon, 1920. iv, 48 pp.; 56 pls. 4to.—**G. v. Lücken**, Die Anfänge der burgundischen Schule: ein Beitrag zum Aufleben der Antike in der Baukunst des xii. Jahrhunderts. Basel, 1920, Schwabe. 48 pp.; 16 pls. 4to.—**E. Lütghen**, Rheinische Kunst des Mittelalters aus Kölner Privatbesitz. Bonn and Leipzig, 1921, Schroeder. viii, 111 pp. 8vo.
- E. Mader**, Altchristliche Basiliken und Lokaltraditionen in Sudjudäa. Paderborn, 1918, Schöningh. xii, 244 pp.; 7 pls.; 12 figs. 8vo. 42 M.—**E. Maillard**, Les Sculptures de la cathédrale Saint-Pierre de Poitiers. Le Puy, 1921, Peyriller, Rouchon et Gamon. ii, 181 pp.; 48 pls.; 20 figs. 4to. 25 fr.—**J. J. Marquet de Vasselot**, Les Énaux limousins de la fin du xv^e siècle et de la première partie du xvi^e: étude sur Nardon Pénicaud et ses contemporains. Paris, 1921, Picard. 412 pp.; 85 pls. 4to.—

- A. Matejček, Die böhmische Malerei des 14. Jahrhunderts. (Bibliothek der Kunstgeschichte, Bd. 12.) Leipzig, 1921, Seemann. 12 pp.; 20 pls. 8vo. 8 M.—A. L. Mayer, Architecture and the Applied Arts in Old Spain. New York, 1921, Brentano. 176 pp. 4to. \$7.50.—A. L. Mayer, Expressionistische Miniaturen des deutschen Mittelalters. Munich, 1918, Delphin-Verlag. 16 pp.; 32 pls. 8vo.—F. Mercier, La Chartreuse de Champmol. Dijon, 1920, Venot. 37 pp.; figs. 8vo.—W. Miller, Essays on the Latin Orient. Cambridge, 1921, University Press. viii, 582 pp.; 7 pls.; 2 figs.; map. 8vo.—U. Monneret de Villard, Le vetrate del duomo di Milano. 3 vols. Milan, 1921, Alfieri e Lacroix. 227 pp.; 190 pls. 4to.
- G. Nicodemi, La mostra bresciana di dipinti antichi. Milan, 1920, Alfieri. 16 pp.; figs. 8vo.—R. Nicholas, Die Hauptvorhalle des Berner Münsters und ihr bildnerischer Schmuck. Berne, 1921, Wyss Erben. iv, 164 pp.; 10 pls. 4to.
- P. Olivier, L'ancienne statue romane de Notre-Dame du Puy, Vierge noire miraculeuse: essai d'iconographie critique. Le Puy, 1921, Badion-Amant. 146 pp. 4to.
- V. Pasquier, L'Eglise et l'Abbaye de Saint-Pierre de Chartres. Chartres, 1921, Durand. 45 pp.; 6 figs. 16mo.—G. L. Passerini, Il ritratto di Dante. Florence, 1921, Alinari. 32 pp.; 50 pls. 16mo.—W. Pauker, Das Augustiner-Chorherrenstift Klosterneuburg in Nieder-Oesterreich. Vienna, 1921, Hölzel. 47 pp.; 30 pls. 8vo.—W. Pinder, Deutsche Dome des Mittelalters. Leipzig, 1921, Longewiesche. 96 pp.; 88 figs. 4to. 12 M.—C. Porée, Histoire des rues et des maisons de Sens. Sens, 1921, Duchemin. 463 pp.; 12 pls. 8vo.—C. Porée, la Cathédrale d'Auxerre. Auxerre, 1920, L'Universelle. 23 pp.; figs. 8vo.—O. Posse, Die Siegel des Adels der Wettiner Lande bis zum Jahre 1500. V. Dresden, 1917, Baensch. vii, 110 pp.; 48 pls. 4to.—F. Puntoni, Sulla ricomposizione e ricostruzione della cantoria di Giovanni Pisano. Pisa, 1920, Mariotti. xi, 198 pp. 8vo.
- Reproductions from manuscripts in the British Museum. Part III: English, A.D. 1300–1500. London, 1921, British Museum. 9 pp.; 16 pls. Folio.—A. Riegl, Salzburgs Stellung in der Kunstgeschichte. Vienna, 1921, Hölzel. 26 pp.; 10 pls. 8vo.
- H. Schmitz, Die Gotik im deutschen Kunst- und Geistesleben. Berlin, 1921, Verlag für Kunstwissenschaft. 261 pp.; 110 figs. 8vo.—Luis Seco de Lucena, La Alhambra; novísimo estudio de historia y arte. Granada, 1919, Vázquez. vi, 447 pp.; figs. 12mo.—A. D. Seritlanges, La Cathédrale: sa mission spirituelle, son esthétique, son décor, sa vie. Paris, 1921, Laurens. 188 pp.; 120 figs. 4to.—I. B. Supino, Giotto. Florence, 1921, Alinari. vi, 334 pp.; 258 pls. 4to.
- H. Verly, Le Grand Armorial de la Toison d'Or (Reproduction facsimile en couleurs du manuscrit d'Anthoine de Beaulaincourt exécuté sur l'ordre de l'empereur Charles-Quint). Lille, 1921, Leleu. vii, 31 pp.; 312 pls. 4to.—L. Vesly, Notes archéologiques. Rouen, 1920, Lalné. 26 pp.; figs. 8vo.—J. Virey, L'Abbaye de Cluny. Paris, 1921, Laurens. 112 pp.; 40 figs.; 2 plans. 16mo.—W. F. Volbach, Metallarbeiten des christlichen Kultes in der Spätantike und im frühen Mittelalter. (Kataloge des römisch-germanischen Central-Museums in Mainz, Nr. 9.) Mainz, 1921, Wilckens. 95 pp.; 8 pls.; 6 figs. 8vo.
- G. Warner, Descriptive catalogue of illuminated manuscripts in the library of C. W. Dyson Perrins. 2 vols. Oxford, 1920, University Press. xx, 342 pp.; 129 pls. Folio.—G. F. Warner and J. P. Gilson, Catalogue of Western Manuscripts in the old Royal and King's collections in the British Museum. London, 1921, British Museum. 4 vols.; 125 pls. 4to.—G. Weise, Beiträge zur Baugeschichte der Stiftskirche zu Hersfeld. Marburg, 1920, Elwert. 23 pp.; fig. 9 pls. 8vo.—K. Wilhelm-Kästner, Der Dom zu Münster in Westfalen. Ein Führer. Berlin, 1921, Deutscher Kunstverlag. 47 pp.; 11 pls. 8vo. 7 M.—J. Wilpert, Die altchristliche Kunst Roms und des Orients. Innsbruck, 1921, Rauch.

33 pp. 8vo. 4 M.—**F. Winckler**, Der Genter Altar in farbiger Wiedergabe nach den Originalen. Leipzig, 1921, Seemann. 11 pp.; 12 pls. 4to.—**O. Wonisch**, Das Benediktinerstift St. Lambrecht in Obersteier. Vienna, 1921, Hölzel. 18 pp.; 12 pls. 8vo.

III. RENAISSANCE

G. S. d'Addosio, Documenti inediti di artisti napoletani dei sec. XVI e XVII, dalle polizze dei banchi. Naples, 1920, Pierro. 311 pp. 8vo.—**P. d'Ancona**, Donatello. Florence, 1921, Alinari. 39 pp.; 48 pls. 16mo.—**P. d'Ancona**, Masaccio. Florence, 1921, Alinari. 20 pp.; 48 pls. 16mo.

L. Baldass, Geertgen van Haarlem. Vienna, 1921, Hölzel. 22 pp.; 20 pls. 8vo.—**L. Baldass**, Holbeins Bildnisse im kunsthistorischen Museum. Vienna, 1921, Bard. ii, 21 pp.; 8 figs. 16mo.—**L. Beltrami**, Il cartone di Raffaello Sanzio per l'affresco della "Scuola d'Atene" nella camera della Segnatura in Vaticano. Milan, 1920, Alfieri e Lacroix. 62 pp.; 34 pls. 4to.—**A. Calosso Bertini**, Le origini della pittura del quattrocento. Rome, 1920, Calzone. 70 pp.; 22 pls. 8vo.—**A. de Beruete y Moret**, Spanish Painting. London, 1921, The Diedio. 36 pp. 4to. 15s.—**L. Biagi**, Andrea del Sarto. Florence, 1920, Alinari. 14 pp.; 48 pls. 16mo.—**Wilhelm von Bode**, Italian Renaissance Furniture, translated by Mary Herrick. New York, 1921, W. Helburn. 48 pp.; pls. 8vo. \$4.00.—**W. von Bode**, Sandro Botticelli. Berlin, 1921, Propyläen. 31 pp. 8vo.—**H. Bodmer**, Lorenzo di Credi. Basel, 1921, type-written thesis. iii, 253 pp. 4to.—**M. Boy de la Tour** and **P. de Pury**, Portraits neuchâtelois. Basel, 1920, Frobenius. 6 pp.; 50 pls. 4to. 75 fr.—**A. Bredius**, Quellenstudien zur holländischen Kunstgeschichte. Band XIII: Künstler-Inventare. Urkunden. The Hague, 1921, Nijhoff. xii, 302 pp.; 32 figs.; 11 pls. 8vo.—**E. W. Bredt**, Rembrandt-Bibel. Munich, 1921, Schmidt. 4 vols.; xvi, 313

pp.; 270 figs. 8vo.—**A. E. Brinckmann**, Barockskulptur. Entwicklungsgeschichte der Skulptur in den romanischen und germanischen Ländern seit Michelangelo bis zum Beginn des 18. Jahrhunderts, 10-15 Heft. Neubabelsberg, 1921, Verlagsgesellschaft Athenaeon. Pp. 177-272; 2 pls.; figs.

G. Carotti, Leonardo da Vinci pittore, scultore, architetto. Turin, 1921, Celanza. 136 pp.; 58 pls. 8vo.

—**Catalogue** of books printed in the 15th century now in the British Museum. Part IV: Italy: Subiaco and Rome. London, 1921, British Museum. xvi, 155 pp.; 13 pls. 4to.

L. Dami, Bramante. Florence, 1921, Alinari. 16 pp.; 48 pls. 16mo.

—**L. Dami**, Simone Martini. Florence, 1921, Giannini. 10 pp.; 50 pls. 16mo. 5 fr.—**L. Demonts**, Musée du Louvre: les dessins de Michel-Ange. Paris, 1921, Morancé. 16 pp.; 18 pls. 8vo.

—**Disegni ornamentali** (R. Galleria degli Uffizi). Florence, 1921, Olschki. 2 pp.; 25 pls. Folio.

—**Prent Duell**, Mission Architecture as exemplified in San Xavier del Bac, including a complete list of missions in the Southwest, etc. Tucson, Arizona, 1919, Arizona Archaeological and Historical Society. x, 135 pp.; figs. 8vo.

M. Eisler, Rembrandt als Landschaftler. Munich, 1918, Bruckmann. vii, 272 pp.; 140 figs. 8vo.

—**C. Escher**, Zürcher Portraits aller Jahrhunderte, II. Basel, 1920, Frobenius. 8 pp.; 51 pls. 4to. 75 fr.

P. Falconi, Le monete piacentine. Piacenza, 1920, Chiolini. 94, 96 pp.; 19 pls. 8vo. 30 fr.—**G. Ferrari**, Bellezze architettoniche per le feste della Chiesa in Roma nei secoli XVII e XVIII. Turin, 1919, Crudo. 4 pp.; 60 pls.

—**G. Fiocco**, Tiepolo. Florence, 1921, Arti grafiche. 20 pp.; 48 pls. 16mo. 5 fr.—**H. B. de Fischer**, Le portrait bernois à travers les siècles. Basel, 1920, Frobenius. vi, 22 pp.; 61 pls. 4to. 75 fr.

—**G. Fogolari**, Giovanni Bellini. Florence, 1921, Alinari. 55 pp.; 48 pls. 16mo.—**P. Fontana**, Filippo Brunelleschi. Florence, 1920, Giannini. 14 pp.; 48 pls. 16mo.

- 5 fr.—**M. Friedländer**, Albrecht Dürer. Leipzig, 1921, Insel-Verlag. 229 pp.; 115 figs. 4to. 60 M.—**M. J. Friedländer**, Zeichnungen alter Meister im staatlichen Kupferstichkabinett. Die deutschen Meister. Berlin, 1921, Bard. vii, 375 pp.; 193 pls. 4to.—**V. Fris**, De altaartafel "De Anabidding van het Lam Gods" der gebroeders Van Eyck. Antwerp, 1921, edit. Lectura. 114 pp.; pl. Svo.—**L. Fröhlich-Bum**, Parmigianino und der Manierismus. Vienna, 1921, Schroll. vii, 199 pp.; 24 pls. 4to.
- G. Galbiati**, Il Cenacolo di Leonardo da Vinci del pittore Giuseppe Bossi nei giudizi d'illustri contemporanei. Milan, 1920, Alfieri e Lacroix. 95 pp.; 4to. 30 fr.—**C. Gamboa**, Il Pontormo. Florence, 1920, Alinari. 16 pp.; 48 figs. Svo.—**J. J. de Gelder**, Bartholomeus van der Helst. Rotterdam, 1921, Brusse. xv, 289 pp.; 41 pls. 4to. 68 fr.—**K. Gerstenberg**, Neuere Kunstgeschichte. Renaissance bis Rokoko. Heidelberg, 1921, Ehrig. 84 pp. Svo. 4.80 M.—**F. Gex**, Le Château de Miolans. Chambéry, 1921, Dardel. 63 pp.; figs. Svo.—**O. Giglioli**, Filippo Lippi. Florence, 1920, Alinari. 19 pp.; 48 pls. 16mo. 5 fr.—**C. Glaser**, Lukas Cranach. Leipzig, 1921, Insel-Verlag. 239 pp.; 117 figs. Svo.—**G. Glück**, Rubens: Zeichnungen der Wiener Albertina in zwölf Faksimiledrucken. Munich, 1921, Piper. 15 pp.; 14 pls. Folio.—**H. Graber**, Piero della Francesca. Basel, 1920, Schwabe. 39 pp.; 80 pls. 4to.—**A. Grisebach**, Deutsche Baukunst im 17. Jahrhundert. (Bibliothek der Kunstgeschichte, Bd. 15.) Leipzig, 1921, Seemann. 12 pp.; 20 pls. Svo. 8 M.
- A. Hahr**, Studier i vasatidens Konst och andra nordiska renassansstudier. Stockholm, 1920, Lindblad. 272 pp.; 110 figs. Svo. 25 fr.—**W. Hausenstein**, Vom Geist des Barock. Munich, 1920, Piper. 135 pp.; 73 pls. Svo.—**M. F. S. Hervey**, The life, correspondence, and collections of Thomas Howard, Earl of Arundel, "father of Vertu in England." London, 1921. xxxi, 562 pp.; 15 pls. Svo.—**T. Hetzer**, Die frühen Gemälde Tizians. Basel, 1920, Schwabe. vii, 142 pp.; 30 pls. Svo.—**C. Hölker**, Meister Conrad von Soest. Münster, 1921, Coppenrath. 63 pp.; 21 pls. Svo.—**C. Hofstede de Groot**, Beschreibendes und kritisches Verzeichnis der Werke der hervorragendsten holländischen Maler des XVII. Jahrhunderts, VII. Esslingen, 1918, Neff. ix, 554 pp. Svo.—**L. A. Holman**, Rembrandt and his Etchings: a compact record of the artist's life, his work, and his times, with the complete chronological list of his etchings compiled by A. M. Hind of the British Museum. Boston, 1921, Goodspeed's Book Shop. 40 pp.; pls.; figs. 12mo. \$0.75.—**H. Hymans**, Oeuvres. Brussels, 1920 and 1921, Hayez. 4 vols.; ix, 2851 pp.; 43 pls. Svo.
- Sir Thomas G. Jackson**, The Renaissance of Roman Architecture. Part I: Italy. Chicago, 1922, University of Chicago Press. vi, 200 pp.; pls.; figs.; plans. Svo. \$10.50.—**K. W. Jähnig**, Tizian. Munich, 1921, Schmidt. 89 pp.; 62 figs. Svo. 10 M.
- H. Kehr**, Anton van Dyck, Munich, 1921, Schmidt. 88 pp.; 60 figs. Svo.—**H. Kehr**, Francisco de Zurbaran. Munich, 1918, Schmidt. 168 pp.; pls. Svo.—**J. Kruse**, Die Zeichnungen Rembrandts und seiner Schule im National-Museum zu Stockholm. Beschreibender und kritischer Katalog, aus dem Nachlass Kruses herausgegeben von Carl Neumann. The Hague, 1921, Nijhoff. 100 pp.; 67 pls.; 117 figs. Folio. 120 guilders.
- F. Lavery**, Raphael. London, 1920, Sands. xii, 161 pp. Svo.—**V. Leblond**, L'Art et les artistes en Ile-de-France au xvi^e siècle (Beauvais et Beauvais) d'après les minutes notariales. Paris, 1921, Champion. 352 pp.; 7 pls.; 80 figs. Svo.—**F. and P. Lesueur**, Le Château de Blois. Paris, 1921, Longuet. 313 pp.; 35 pls.; 30 figs. 2 plans. Svo.—**F. Lippmann**, Sandro Botticelli: Zeichnungen zu Dantes Göttlicher Komödie. Berlin, 1921, Grote. 80 pp.; 92 pls. 24 figs. 4to.—**A. Loehr**, Die niederländische Medaille des 17. Jahrhunderts. (Kunst in Holland. Bd. 11.) Vienna, 1921, Hölzel. 20 pp.; 10 pls. Svo. 12 M.

- A. Malaguzzi-Valeri**, Guido Reni. Florence, 1921, Alinari. 12 pp.; 48 pls. 16mo. 5 fr.—**A. Malaguzzi-Valeri**, Il Francia. Florence, 1921, Alinari. 16 pp.; 48 pls. 16mo. 5 fr.—**A. Marquand**, Benedetto and Santi Buglioni. Princeton, 1921, Princeton University Press. lxvi, 223 pp.; 148 figs. 4to. \$7.50.—**R. Muther**, Leonardo da Vinci. (Kunst-Sammlung Brandus, Bd. 9.) Berlin, 1921, Brandus. 63 pp.; figs. 8vo. 22 M.—**R. Muther**, Lucas Cranach. (Kunst-Sammlung Brandus, Bd. 1.) Berlin, 1921, Brandus. 49 pp.; figs. 8vo. 22 M.—**R. Muther**, Rembrandt van Ryn. (Kunst-Sammlung Brandus.) Berlin, 1921, Brandus. 47 pp.; figs. 8vo. 22 M.
- W. Niemeyer**, Matthias Grünewald, der Maler des Isenheimer Altars. Berlin, 1921, Furcht-Verlag. 52 pp.; 10 pls.; 24 figs. 8vo.
- U. Ojetti**, Raffaello e altre leggi. Milan, 1921, Treves. xiii, 262 pp. 16mo.—**R. Oldenbourg**, Domenico Feti. Rome, 1921, tip. Unione. 15 pp.; 25 pls. 8vo. 7.50 fr.—**J. A. F. Orban**, Documenti sul barocco in Roma. Perugia, 1920, Tip. cooperativa. clxvi, 659 pp. 8vo.
- G. Pacchioni**, Andrea Mantegna. Florence, 1921, Alinari. 15 pp.; 48 pls. 16mo.—**E. Panofsky**, Die sixtinische Decke. (Bibliothek der Kunstgeschichte, Bd. 8.) Leipzig, 1921, Seemann. 8 M.—**L. Pelandi**, Raffaello Sanzio. Bergamo, 1921, Istituto italiano d'arti grafiche. 31 pls. 8vo.—**K. Pfister**, Breugel. Leipzig, 1921, Insel-Verlag. 47 pp.; 78 figs. 8vo.—**K. Pfister**, Der junge Dürer. Munich, 1921, Recht. 44 pp.; 20 pls. 4to.—**K. Pfister**, Hans Holbein der Jüngere. Munich, 1921, 48 pp.; 60 pls.; figs. 8vo. 35 M.
- F. Roh**, Holländische Malerei. Jena, 1921, Diederichs. 335 pp.; 200 figs. 4to.—**P. Roi**, Il Correggio. Florence, 1921, Alinari. 15 pp.; 48 pls. 16mo. 5 fr.—**W. Rothes**, Der Terborch und das holländische Gesellschaftsbild. (Die Kunst der Völke, Nr. 41–42.) Munich, 1921, Vereinigung für christliche Kunst. 56 pp.; 88 figs. 8vo.—**H. Rottinger**, Beiträge zur Geschichte des sächsischen Holzschnittes. Strasbourg, 1921, Heitz. 104 pp.; 10 pls. 8vo.
- M. Salmi**, Luca Signorelli. Florence, 1920, Alinari. 14 pp.; 49 pls. 16mo. 5 fr.—**E. Schaeffer**, Sandro Botticelli. Berlin, 1921, Bard. iii, 58 pp.; 88 pls. 4to.—**A. Schiaparelli**, Leonardo ritrattista. Milan, 1921, Treves. 199 pp.; 40 pls. 8vo. 25 fr.—**A. Schmarzow**, Gotik in der Renaissance. Stuttgart, 1921, Enke. 92 pp.; 16 figs. 8vo.—**H. Schmitz**, Bild-Teppiche, Geschichte der Gobelwirkerei. 2 Aufl. Berlin, 1921, Verlag für Kunstwissenschaft. 352 pp.; 158 figs.—**L. Serra**, Il Domenichino. Florence, 1921, Alinari. 14 pp.; 49 pls. 16mo. 5 fr.—**F. Servaes**, Albrecht Dürer. (Kunst-Sammlung Brandus, Bd. 42.) Berlin, 1921, Brandus. 48 pp.; figs. 8vo. 22 M.—**W. R. Stachelin**, Basler Portraits aller Jahrhunderte, III. Basel, 1921, Frobenius. 14 pp.; 57 pls. 4to. 45 fr.—**E. K. Stahl**, Die Legende vom heiligen Riesen Christophorus in der Graphik der XV. und XVI. Jahrhunderten. Munich, 1920, Lentner. xii, 225 pp.; 63 pls. 4to.—**I. B. Supino**, Beato Angelico. Florence, 1920, Giannini. 12 pp.; 50 pls. 16mo. 5 fr.—**I. B. Supino**, Sandro Botticelli: i disegni per la Divina Commedia di Dante Alighieri. Bologna, 1921, Apollo. 5 pp.; 92 pls. 4to.
- M. Tinti**, Bronzino. Florence, 1920, Giannini. 14 pp.; 48 pls. 16mo. 5 fr.—**La Touraine**, Le château de Chenonceaux sur le Cher. Paris, 1921, Cadet. 200 pp.; figs. 8vo.
- W. R. Valentiner**, Rembrandt: wiedergefundene Gemälde (1910–1920) Stuttgart and Berlin, 1921, Deutsche Verlags-Anstalt. xxvii, 134 pp.; 120 figs. 8vo.—**G. Vanzype**, Jan Vermeer de Delft. Brussels and Paris, 1921, van Oest. 76 pp.; 37 pls. 4to. 150 fr.—**A. Venturi**, Leonardo da Vinci pittore. Bologna, 1920, Zanichelli. 196 pp.; 129 figs. 8vo. 35 fr.—**L. Venturi**, Il Caravaggio. Rome, 1921, tip. Unione. 16 pp.; 32 pls. 8vo. 7.50 fr.—**L. Venturi**, La critica e l'arte di Leonardo da Vinci. Bologna, 1920, Zanichelli. 208 pp.

- 8vo.—**A. del Vita**, Piero della Francesca. Florence, 1921, Alinari. 27 pp.; 48 pls. 16mo.
- M. Wackernagel**, Die Baukunst des 17. und 18. Jahrhunderte in den germanischen Ländern. 6-7 Heft. Neubabelsberg, 1921, Verlagsgesellschaft Athenaion. Pp. 145-179; pl.; figs. 8vo.—**Walraf-Richardtz-Museum**. Das Bildnis in Köln vom 15. bis zum 18. Jahrhundert. Cologne, 1921, Kölner Verlagsanstalt. 20 pp.; figs. 8vo. 2 M.—**Werner Weisbach**, Trionfi. Berlin, 1919, Grote. vii, 162 pp.; figs. 4to.—**Die Wiener Gobelin-Sammlung**, Lieferungen 5-15. Vienna, 1921, Hölzel. Pls. Folio.
- H. Willich**, Die Baukunst der Renaissance in Italien. (Handbuch der Kunstwissenschaft, 151-153.) Neubabelsberg, Berlin, 1921, Akad. Verlagsges. Athenaion. Pp. 113-162; pls.; figs. 4to.
- J. Zeller**, Die Madonna von Stuppach, ein Meisterwerk von Matthias Grünewald. Bad Mergentheim, 1921, Ohlingers Nachfolger. 15 pp.; 5 figs.; pl. 8vo.—**K. Zoege von Manteuffel**, Hans Holbein der Maler. Munich, 1920, Schmidt. iv, 85 pp.; 60 figs. 8vo.—**K. Zoege von Manteuffel**, Hans Holbein der Zeichner. Munich, 1921, Schmidt. 77 pp.; 71 figs. 8vo.